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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1996

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RINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

RALPH REGULA, Ohio, *Chairman*

JOSEPH M. McDADE, Pennsylvania
JIM KOLBE, Arizona
JOE SKEEN, New Mexico
BARBARA F. VUCANOVICH, Nevada
CHARLES H. TAYLOR. North Carolina
GEORGE R. NETHERCUTT, JR., Washington
JIM BUNN, Oregon

SIDNEY R. YATES, Illinois
NORMAN D. DICKS, Washington
TOM BEVILL, Alabama
DAVID E. SKAGGS, Colorado

NOTE: Under Committee Rules, Mr. Livingston, as Chairman of the Full Committee, and Mr. Obey, as Ranking Minority Member of the Full Committee, are authorized to sit as Members of all Subcommittees.

DEBORAH WEATHERLY, LORETTA BEAUMONT, MARK MIODUSKI, and JOEL KAPLAN,
Staff Assistants

PART 6

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Testimony of Members of Congress **1**
Testimony of Public Witnesses for Energy Programs, Mining and Geology Programs, Arts, Humanities, and Museum Programs **233**

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1996

HEARINGS

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1996

TESTIMONY OF MEMBERS OF CONGRESS

WEDNESDAY, MARCH 29, 1995.

NATIONAL AGROFORESTRY CENTER

LAND AND WATER CONSERVATION FUND

HISTORICAL AND ARCHEOLOGICAL STUDY OF MISSOURI RIVER CORRIDOR

FISH AND WILDLIFE COOPERATIVE RESEARCH UNIT AT UNIVERSITY OF NEBRASKA

WITNESS

HON. DOUG BEREUTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEBRASKA

Mr. REGULA [presiding]. We'll start the committee hearing.

Doug, we're happy to welcome you and, of course, your testimony will be made part of the record.

Mr. BEREUTER. Thank you, Mr. Chairman.

I have a summary, which perhaps will help you, a one-page summary, as well as the written document here, and I'll just summarize my statement, Mr. Chairman.

We have, with your generosity and assistance, established a few years ago a National Agroforestry Center in Lincoln, Nebraska. It's been doing some good work. It's for the whole Great Plains region. They have requested $.5 million for programs that I think are valid, but I chose not to support that because I understand the constraints you're under. So I'm supporting the administration's request, which is $250,000, which will keep them underway, not provide an expansion, but I think it's appropriate, given the duress you have, and that's a judgment I made.

Secondly, I wanted to mention the Fish and Wildlife Cooperative Research Center. I have supported the additional centers being opened in other States for the last six years running, and we are one of the few States that does not have a Fish and Wildlife Cooperative Research Unit. We are a part of the region, a part of the United States where we have a tremendous waterfowl migratory pattern, now the largest in the country, larger than the Eastern Shore. And for a variety of reasons, I think it's appropriate that we have an opportunity to establish a center.

The administration has requested $500,000 for two Cooperative Research Units, and I would hope that they would be chosen on a competitive basis because I believe that they will select Nebraska for one of the remaining States to have such a cooperative center. So I'm supporting the administration's request in that respect.

Last year I mentioned the fact that the Land and Water Conservation Fund, which greatly facilitates protection of nationally-significant resources and wildlife habitat, is being skewed so that very little comes to the central part of the United States, and I would like to see and have some suggestions about the kind of language that you could put in the bill which would suggest that those funds be more equitably shared across the country. We are the major route for the migratory waterfowl across the continent. We have lost a great deal of our wetlands in that area. We need to have some of those resources come to the center of the United States, and we have some figures in here which shows you what a very small amount of the total does come there today.

Finally, I do have one small request that is important. I think it's my second year to request something like this. It's for $150,000 for a special study by the National Park Service of the area along the Missouri River—and it includes the Platte in the Missouri River—to look at historical and archeological sites in the area. And I've listed a whole series of sites that are located somewhere in that area, but we need more detail on it.

The most important element is the fact that the first military outpost west of the Missouri River in the whole western United States was established there very early in the 19th century. There are over 200 unmarked military personnel graves in the area. We don't know precisely where they are. They've never been recognized. I think it would be appropriate for us to try to find where they are and to give them some sort of protection, and especially recognition. Protection seems apparently not needed at this point. That is one particular element. We would like to be able to use some of the scientific information and techniques and equipment today to find where those 200 soldiers are, most of whom died the first winter there, an extraordinary winter plagued by blizzards and disease. That's the nature of that request, and we've had some consultation with the Park Service out there. They understand the importance of it. They'd like an authorization to go ahead, if they could.

Thank you. Do you have any questions?

Mr. REGULA. You have the National Arbor Day headquarters, don't you?

Mr. BEREUTER. We do, and, as a matter of fact, you have a special invitation to visit because I'm hosting members of the European Parliament there this year on September 30 through October 2. It's in Nebraska City, Nebraska. It's a wonderful facility. You put about—you and the two Interior Appropriations subcommittees put about $7 million into it, I think, or $7.5 million.

Mr. REGULA. Annually?

Mr. BEREUTER. No, total.

Mr. REGULA. Oh, total?

Mr. BEREUTER. Construction. No subsidy coming to it.

Mr. REGULA. So it was just construction?

Mr. BEREUTER. Right. And it is made out of some of the most fantastic timber construction you can imagine.

Mr. REGULA. Is that right?

Mr. BEREUTER. It's really quite beautiful.

Mr. REGULA. Well, I'm a member, so I get all their literature and words and kinds of trees from them, and so on.

Mr. BEREUTER. I'll give you a special invitation to join us out there.

Mr. REGULA. Okay. You bet; I might. We should be finished with the 100 days by then.

Mr. BEREUTER. I hope so. [Laughter.]

Mr. REGULA. I think you'd be interested—Ken Burns' next film is going to be "Lewis and Clark." Doesn't that pass through your area?

Mr. BEREUTER. Yes, it does. In fact, because of my time on the Interior Committee, we got the trail centers and markings authorized, so that Lewis and Clark special markings and stories from the journal of that day are now all located on the Nebraska side coming up and going down river.

Mr. REGULA. That should be an interesting film.

Mr. BEREUTER. It should be.

Mr. REGULA. I know he mentioned it.

Okay. Well, thanks, Doug.

Mr. BEREUTER. Thank you, Mr. Chairman.

By the way, the Indian tribes are proceeding with the location of the hospital and the Indian Health Service is about to let a contract, we would expect soon, and that's because of your effort in the past and Mr. Yates. Thank you very much.

Mr. REGULA. They were here yesterday.

Mr. BEREUTER. Good.

Mr. REGULA. Okay, thank you.

[The statement of Mr. Bereuter follows:]

STATEMENT OF CONGRESSMAN DOUG BEREUTER TO THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR
MARCH 29, 1995

Summary of funding requests:

I. NATIONAL AGROFORESTRY CENTER

I support the Administration's request of $250,000 from state and private forestry funds for the National Agroforestry Center at Lincoln, Nebraska.

II. LAND AND WATER CONSERVATION FUND

The Land and Water Conservation Fund greatly facilitates the protection of nationally significant resources and wildlife habitat. I am requesting a correction in the current inequities in the distribution of funding to the various regions from the Land and Water Conservation Fund.

III. HISTORICAL AND ARCHEOLOGICAL STUDY OF MISSOURI RIVER CORRIDOR

I am requesting $150,000 for a special study by the National Park Service of the area along the Missouri River from the confluence of the Platte River and the Missouri River northward to South Sioux City, Nebraska.

IV. FISH AND WILDLIFE COOPERATIVE RESEARCH UNIT AT UNIVERSITY OF NEBRASKA

I remain strongly supportive of the establishment of a new fish and wildlife cooperative research unit at the University of Nebraska-Lincoln. I support the Administration's FY96 budget request of $500,000 for two new Cooperative Research Units, which would be chosen on a competitive basis.

STATEMENT OF CONGRESSMAN DOUG BEREUTER TO THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR

MARCH 29, 1995

Chairman Regula, Congressman Yates, and members of the Subcommittee: I would like to begin by expressing my appreciation for the opportunity to appear before you to request funding for several projects of importance to the State of Nebraska.

I. NATIONAL AGROFORESTRY CENTER

NEED REQUEST: I support the Administration's request of $250,000 from state and private forestry funds for the National Agroforestry Center at Lincoln, Nebraska. This funding is necessary to help ensure that the valuable research being conducted at the Center reaches those who will most benefit from the research.

REASON FOR REQUEST: The National Agroforestry Center (formerly the Center for Semiarid Agroforestry) was authorized by the 1990 Farm Bill, the Food, Agriculture, Conservation, and Trade Act (FACTA). Section 1243 of the FACTA authorized an annual appropriation of up to $5 million for the center. The National Agroforestry Center is a partnership of the Research, Sate and Private Forestry, and International Forestry branches of the USDA Forest Service. The Center conducts research on developing tree varieties, especially adapted to the Great Plains, that will enhance crop and livestock production, protect surface and groundwater quality, create wildlife habitat, and promote environmental goals.

The Center, located in Lincoln, Nebraska is a key element of agroforestry research and technology transfer for the Forest Service. The Center's mission is to accelerate the development and application of agroforestry technologies to attain more economically, environmentally, and socially sustainable ecosystems. To accomplish its mission, the Center conducts agroforestry research for the Great Plains, and interacts with a national network of cooperators to conduct research, develop technologies and tools, establish demonstrations, and provide useful information to natural resource professionals nationwide and globally.

The Center seeks to increase the use of agroforestry in order to fulfill the following purposes:

- Make agriculture more sustainable
- Mitigate the adverse environmental side effects of agriculture
- Convert marginal farmlands to high-value tree crops and wildlife habitat
- Enhance human environments

In addition, the Center has developed the following specific goals:

- Demonstrating that conservation trees are a vital component of sustainable agro-ecosystems

- Increasing recognition of the importance of riparian buffer strips for mitigation of nonpoint source water pollution in agriculture
- Diversifying rural agricultural economies by using trees as an alternative source of income
- Developing support for the use of conservation trees in urban and community environments

Partnerships have been formed with State Forestry agencies, universities, Natural Resources Conservation Service, Agricultural Research Service, Extension Service, Environmental Protection Agency, and soil and water conservation and natural resource districts in several states.

II. LAND AND WATER CONSERVATION FUND

NEED REQUEST: The Land and Water Conservation Fund greatly facilitates the protection of nationally significant resources and wildlife habitat. I am requesting a correction in the current inequities in the distribution of funding to the various regions from the Land and Water Conservation Fund.

REASON FOR REQUEST: The Land and Water Conservation Fund assists the U.S. Fish and Wildlife Service, the U.S. Forest Service, the Bureau of Land Management, and the National Park Service in acquisition projects. The Fund provides an important means for protecting critical wildlife habitat and nationally significant resources. Unfortunately, over the past several years, states in the Rocky Mountain and Great Plains Region -- which includes Nebraska -- have received a significantly smaller share of the funding. For instance, during FY90-95, the West Coast region received 36% of the project-specific appropriations, the East Coast region received 24%, and the Gulf Coast received 22%. However, during this same period, the states comprising the Mountain-Prairie Region received only seven percent of the project-specific funding. As a result, many critically important projects in this region have lacked necessary funding.

I am requesting that this subcommittee correct the current funding inequity by specifying that at least 12% of the project-specific appropriations be distributed to each of the agency's various regions. Another option would be to earmark for the Rocky Mountain and Great Plains region at least 15% of the project-specific appropriations from the Land and Water Conservation Fund. Such corrective action is clearly needed.

A more equitable distribution would help ensure that worthwhile projects such as the Rainwater Basin in Nebraska would receive adequate support. This wetlands area is geographically unique and represents a "bottleneck" in the north-south migration corridor for whooping cranes, five to seven million waterfowl, and 90 percent of the mid-continent sandhill crane population. The Rainwater Basin lies at the central -- and narrowest point -- of this hourglass-shaped spring migration pathway. Substantial investments have been made to protect the northern nesting grounds and southern wintering areas. However, these efforts will be unproductive unless the spring staging area is also protected. Although the Rainwater Basin is the spring staging area for significant numbers of North American waterfowl, nearly 80 percent of the historic wetland acreage has been drained.

The Rainwater Basin project is designed to protect and restore wetlands for spring waterfowl migration and non-wildlife values. The effects of the reduced amount of wetlands in the area are becoming more obvious each year. The decreasing availability of habitat during peak migration periods is causing migratory waterfowl and related species to concentrate in the limited remaining areas. These concentrations lead to an increase in annual outbreaks of avian cholera which result in substantial losses of birds. However, by gradually rebuilding the rainwater basin, the wonderful tapestry of wetlands can be re-assembled one thread at a time.

III. HISTORICAL AND ARCHEOLOGICAL STUDY OF MISSOURI RIVER CORRIDOR

NEED REQUEST: I am requesting $150,000 for a special study by the National Park Service of the area along the Missouri River from the confluence of the Platte River and the Missouri River northward to South Sioux City, Nebraska.

REASON FOR REQUEST: This special study is necessary to examine several historical and archeological sites and to consider options for preserving these significant areas. These sites include:

- Fort Atkinson Cemetery (Washington County)
- Engineers Cantonnement (Washington County)
- Council Bluff Site (Washington County)
- Fort Carlos - 1795 Spanish Trading Fort (Dakota County)
- Cabannes Trading Post (Douglas County)
- Peter Sarpy Trading Post (Sarpy County)
- Fort Lisa (Washington County)
- Missouri Village (Dakota County)

This project would have five basic elements:

- An historical survey and summary of previous studies and document on computer records
- Remote sensing survey using previous aerial photographs from several agencies to see if a pattern might show possible locations
- Direct sensing element, using individually, or in combination, the techniques of ground penetrating radar, magnetometers, and soil resistivity measures
- An archeological component to excavate and verify the presence of features
- A curation element to recognize, preserve, purchase or do whatever is deemed appropriate to preserve and interpret findings

IV. FISH AND WILDLIFE COOPERATIVE RESEARCH UNIT AT UNIVERSITY OF NEBRASKA

NEED REQUEST: I remain strongly supportive of the establishment of a new fish and wildlife cooperative research unit at the University of Nebraska-Lincoln. I have patiently requested funding for this cooperative research unit since 1990.

The Administration's FY96 budget includes an increase of $500,000 for Cooperative Research Units. This funding increase would allow for two new units, which would be chosen on a competitive basis. Since Nebraska has consistently made the strongest case for a new unit, I support this funding increase which I believe would finally lead to the establishment of a Cooperative Research Unit at the University of Nebraska-Lincoln

REASON FOR REQUEST: Nebraska's strategic location presents several very special research opportunities, particularly relating to migratory birds. However, Nebraska is one of only ten states without a cooperative fish and wildlife research unit within the state.

The Platte River of Nebraska is recognized as a major environmental corridor, especially as an internationally significant staging area for migratory birds. The North American Waterfowl Management Plan includes the protection of the rainwater basin and sandhills wetlands as critical nesting habitat for migratory waterfowl. Locating a cooperative research unit in Nebraska to develop useful information relating to these issues upon which to base critical management decisions is an urgent need.

I, along with others, have supported the cooperative research program for many years. This is the sixth year in a row that I have expressed my strong support for this project and since 1991 I have testified before this subcommittee each year as an advocate for establishing a fish and wildlife cooperative research unit for the University of Nebraska in Lincoln. Although research efforts have been conducted in Nebraska by cooperative research units from other state's units, time and travel requirements have greatly limited the effectiveness, depth and breadth of these efforts.

Finally, Mr. Chairman, I would like to thank you and the Committee for past support of funding for construction of a replacement facility for the Winnebago Indian Health Service Hospital, located in Winnebago, Nebraska. As you know, the Winnebago and Omaha Tribes have come to an agreement regarding the site selection for the new facility and the planning and design are proceeding on schedule. The tribes are not requesting additional funding for fiscal year 1996, but will use the funds previously appropriated for this purpose.

Again, Chairman Regula, Congressman Yates, and members of the Subcommittee, thank you for the opportunity to speak on behalf of these projects which are of great importance to Nebraska.

WEDNESDAY, MARCH 29, 1995.

NATIONAL ENDOWMENTS FOR THE ARTS AND FOR THE HUMANITIES

INSTITUTE FOR MUSEUM SERVICES

WITNESS

HON. JERROLD NADLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. REGULA. Jerry, come on in.

Mr. NADLER. Greetings.

Mr. REGULA. Good morning.

Mr. NADLER. Good morning.

Mr. REGULA. We'll put your statement in the record and tell us what you're interested in.

Mr. NADLER. Thank you. Thank you, Mr. Chairman. I appreciate this opportunity to testify in support of the administration's Fiscal Year 1996 budget request for the National Endowment for the Arts and Humanities, $172.4 million for the NEA, $182.8 million for the NEH, and $29.8 million for the Institute of Museum Services.

These appropriation levels represent less than 1/40th of 1 percent of the Federal budget. The controversy over the Endowments is not primarily about saving money because, if all Federal funding for the arts were eliminated, the result would be barely a blip in the budget.

Champions of the Endowments—and I count myself one of them—quote impressive statistics on the positive impact of Federal support of culture and the arts on jobs services and contracts. For example, for every dollar the NEA invests in communities, there's a twenty-fold return to the U.S. Treasury. Expenditures in the not-for-profit art sector alone, which is greatly reliant on NEA support, contributed an estimated $37 billion to the economy.

In addition to the direct positive impact of the not-for-profit art sector on the economy, it also provides a great stimulus for the commercial sector of the arts and culture worlds. For example, "Jelly's Last Jam," an enormously successful Broadway production which has brought in enormous revenues and generated tremendous economic activity, was first developed at an NEA-supported theater in Los Angeles and with the aid of an NEA development grant provided to one of its producers. Now the show is being performing in Wilmington, Delaware, after having entertained audiences in Washington a few weeks ago. This is a prime example of a commercial production made possible with assistance from the NEA, and how it has provided jobs to performers and suppliers and is still giving pleasure and boosting local economies wherever it tours. With its offbeat themes, "Jelly's Last Jam" was not initially able to get commercial backing. It was only with the seed money from the NEA that it was able to achieve its eventual popular success and bring economic benefits to communities throughout the country.

Some opponents of Federal funding for the arts and humanities consistently highlight the very few controversial grants that have been awarded by the NEA. Personally, I'm amazed that, with a record of more than 100,000 grants, there have been so few that have raised anyone's eyebrows. There are few, if any, other Federal agencies that can boast such a consistently fine record, and not just a fine record of achievement, but a fine record of avoiding any controversy. The controversies we hear about are only four or five grants out of over 100,000.

Some claim that Federal arts funding benefits only the elite few. This is the opposite of the truth. Through the Endowments, American art and culture have reached into every State in the Nation, benefitting each State's economy and bringing a sense of community that nothing else can satisfy. Without the NEA, only the elite few in New York, and perhaps Los Angeles, would have the opportunity to see theatrical productions or, for that matter, to afford them because the ticket prices would be much higher than they are presently. All the theatrical productions in every community in this country, other than New York and perhaps Los Angeles, would not occur if it were not for the grants from the NEA. So, the NEA brings theater and culture not to the elite, but the heartland of America. Culture to a large extent would be limited to the elite if it weren't for the NEA.

A recent article in the New York Times vividly described the difference NEA funding can make in rural areas like western Montana. As the article noted, "people drive through blizzards and over mountain passes for a chance to see art and to be a part of it. Many talk about a yearning to be connected to a larger world, to see and hear creation apart from the overwhelming western sky."

The NEA provided a grant in Montana of about $779,000 last year, helping to pay for writers' workshops, art museums, community centers, dance groups, Indian tribal singers, quilting bees, and woodwind quintets. I won't go through the NEH's record of similarly broad support, and that of the IMS for every museum in local communities all over the country.

We must not let political ideology of some blind us to the overwhelming evidence that support for our art and culture is for the benefit of all of us. The truth is that those of us who enjoy the popular arts are no different from those who like what some call the serious arts. American art and culture is the Grand Ole Opry and the grand opera, symphonies and Sinatra. What makes America great is that we are a spectacularly diverse group of people.

The final note is that other countries, our competitors in the global market, recognize the importance of government financial support for culture in the arts and are making the necessary investments. Canada and France spent $32 per capita on culture in their national budgets, and Germany, $27 per capita. In the United States, NEA funding works out to 64 cents per American, and the humanities support is $1.70. The city of Berlin has an arts budget of roughly $800 million a year, more than four times the budget of the NEA and twice the budget of the NEA/NEH combined. Are we saying that the greatest nation in the world cannot afford even a quarter of support for its art and culture that one European city can? I know this is a time of serious budget constraints, but the Endowments have taken serious cuts already, and those across-the-board cuts have hit small agencies particularly hard. Congress should continue its important role in supporting art, culture, and the humanities in America, and I hope that this committee will recommend that.

Thank you, Mr. Chairman.

[The statement of Mr. Nadler follows:]

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TESTIMONY OF U.S. REPRESENTATIVE JERROLD NADLER

BEFORE THE

HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR & RELATED AGENCIES

MARCH 29, 1995

Mr. Chairman, I appreciate this opportunity to testify in support of the Administration's Fiscal Year 1996 budget request for the National Endowments for the Arts and Humanities -- $172.4 million for the National Endowment for the Arts (NEA), $182.8 million for the National Endowment for the Humanities, and $29.8 million for the Institute of Museum Services.

These appropriation levels represent a fraction of 1% of the entire federal budget. The controversy over the Endowments is not primarily about saving money, because even if all federal arts funding were cut, the result would be barely a blip in the federal budget. We would actually lose some of the beneficial economic impact of the arts by taking such a drastic action.

Champions of the Endowments quote impressive statistics about the positive impact that federal support of culture and the arts has on jobs, services and contracts. They note, for example, that for every dollar the NEA invests in communities, there is a 20-fold return to the U.S. Treasury. Expenditures in the not-for-profit arts sector alone, which is greatly reliant on NEA support, contribute an estimated $37 billion to the U.S. economy.

In addition to the direct positive impact that the not-for-profit arts sector has on the economy, it is the stimulus from which the more popular, commercial art and cultural projects, which are less dependent on government support, are made possible. For example, Jelly's Last Jam, ultimately grew into an enormously successful Broadway production, was developed at an NEA supported theater in Los Angeles, and the NEA provided a development grant to one of its producers. Now the show is being performed in Wilmington, Delaware, after having entertained audiences in Washington a few weeks ago. This is a prime example of a commercial production made possible with assistance from the NEA that has provided jobs to performers and suppliers for several years and is still giving pleasure and boosting local economies wherever it tours.

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Another dramatic example of the significance of federal funding for the not-for-profit arts sector is demonstrated by the huge success of the Academy Award winning film Driving Miss Daisy, which began life in a 99-seat NEA funded theater.

With their off-beat themes, neither Jelly's Last Jam nor Driving Miss Daisy were able to get commercial backing initially. It was only with the seed money from the NEA that they were able to achieve their eventual popular successes, and bring economic benefits to communities throughout the country where the shows are seen.

Many opponents of federal funding for the arts and humanities consistently mention the few controversial grants that have been awarded by the NEA. Personally, I am amazed that with a record of more than 100,000 grants, there have been so few that have raised eyebrows. There are few, if any, other federal agencies that can boast such a consistently fine record.

Others claim that federal arts funding benefits only the elite few. This is simply not true. Through the Endowments, American art and culture have reached into every state in the nation, benefitting each states's economy and bringing a sense of community that nothing else can satisfy.

Millions of Americans have heard NEA-funded concerts and have seen NEA-funded exhibitions. We've also watched the free arts programming on public television that is partially NEA and NEH funded. In the past 30 years, millions of our students and teachers have been reached through the NEA artist-in-residence programs.

A recent New York Times article vividly described the difference NEA funding can make in rural areas like western Montana. As The Times noted, "People drive through blizzards and over mountain passes for a chance to see art and to be a part of it. Many talk about a yearning to be connected to a larger. world, to see and hear creation apart from the overwhelming Western sky." The NEA gave Montana about $779,000 last year, helping to pay for writers' workshops, art museums, community centers, dance troupes, Indian tribal singers, quilting bees and woodwind quintets. As the article said, the Federal money seems to do what the rural electrical cooperatives of the 1930's did: "It electrifies remote regions, creating a kind of wiring to connect them." Montana's governor is quoted as saying that "Regardless of political ideology, our identity and our spiritual health depend on the arts."

As for the NEH's broad national outreach, in Fiscal Year 1993 alone, the NEH sponsored 29 teacher institutes and 69 seminars for 1,618 school teachers from 49 states, Puerto Rico, Guam and the District of Columbia. These teachers in turn reached an estimated 217,000 students during the 1993-1994 academic year. The 47 NEH media awards of 1993 will culminate in 70 hours of television and 69 hours of radio reaching close to 244 million Americans.

Additionally, the IMS provides essential general operating support to the full range of museums throughout the country, including aquariums, arboretums and botanical gardens, art, youth and general museums, historic houses and sites, nature centers, natural history and anthropology museums and zoos.

We must not let political ideology blind us to the overwhelming evidence that support for our art and culture is for the benefit of all of us. We must not let extremists use our great cultural diversity as a wedge issue to divide us. The truth is that those of us who enjoy the "popular" arts are no different from those who like what some call the "serious" arts. American art and culture is the Grand Ole Opry and grand opera, symphonies and Sinatra. What makes America great is that we are a spectacularly diverse group of people.

It is important for us to remember, too, that -- based on past experiences -- there is every possibility that some of what we reject today may prove to be of lasting value to later generations. That is why we need a federal commitment to our nation's art and culture. Just look at the Vietnam Memorial here in Washington. It probably would never have been built without NEA funding; it was very controversial; now it is a source of wonder and comfort to untold numbers of us.

Other countries, our competitors in the global market, recognize the importance of government financial support for culture and the arts, and are making the necessary investments. Canada and France spend $32 per capita on culture, and Germany spends $27 dollars per capita. In the United States, NEA funding works out to just $0.64 per American, and the humanities support is $1.70. The city of Berlin has an arts budget of roughly $800 million a year -- more than four times the budget of the National Endowment for the Arts. Are we saying that the greatest nation in the world cannot afford even a quarter of the support for its art and culture that one European city can?

I know that this is a time of budget constraints, but the Endowments have already taken serious cuts, and those across-the-board cuts have hit small agencies particularly hard. Congress should continue its important role in supporting art, culture and the humanities in America.

Thank you.

Mr. REGULA. Thanks, Jerry, but let me point out you should get to the authorizing committee. We have no authorization for any of those three functions, and unless they get an authorizing bill, we have a hard time appropriating them.

Mr. NADLER. I am very well aware of that, and as a member of the Public Works Committee, or what used to be called the Public Works Committee, I participated—was it last year?—two years ago in the great battle of the appropriation——

Mr. REGULA. Okay.

Mr. NADLER. I appreciate that and we are talking to the authorizing committees. I would just hope that, if the authorization comes through, the Appropriations Committee will follow through.

Mr. REGULA. Okay, thank you very much.

Mr. NADLER. Thank you.

WEDNESDAY, MARCH 29, 1995.

FOREST SERVICE

WITNESS

HON. TOBY ROTH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mr. REGULA. Toby?

Mr. ROTH. Thank you very much, Mr. Chairman. Jerry, it's always a pleasure to be with you.

Mr. Chairman, I'm going to abbreviate my remarks.

Mr. REGULA. We'll put your complete statement in the record.

Mr. ROTH. Thank you very much, Mr. Chairman. I will just take one minute.

I know you are aware of this—the Administration has called for more cuts in the timber sales program, and from 1990 to 1994 this program has declined some 60 percent in funding. You know, I'm one of these people, yes, let's balance the budget, and, yes, it's very important that we make the right decisions. But being that we cut this by some 60 percent, I think this is already a pretty good cut.

I am asking you, Mr. Chairman and members of this committee, to recognize that the timber sales program means jobs and jobs and jobs to our hard-working families up in Forest, Vilas, Florence, and Oneida Counties. The timber sales program affects the entire community, not just the loggers. It puts people to work not just in the logging industry, but in the main streets of our rural America, in places like Crandon, Long Lake, Wabino, and it keeps lumber prices low and makes owning a new home here in America more affordable. And it means a healthy, well-managed national forest free from disease and insects and able to survive the wildfires.

And for the sake of these hard-working people, I hope that you will continue to promote the Forest Service timber sales program. It means well over 1,000 jobs in our particular area. In fact, it supports the entire community and is responsible for pumping $45 million into the local economy, and it provides money for schools and roads.

And, furthermore, the timber sales program operates very effectively in Wisconsin. In our region, region 9, Mr. Chairman and members, we led the Nation with the highest accomplishment in

Fiscal Year 1994. Our preparation costs are the lowest in the Nation. So I think that we've done an exceedingly good job, Mr. Chairman, and I ask you to look at this program and to give it your blessing because we've been cut by 60 percent in just four years.

[The statement of Mr. Roth follows:]

STATEMENT OF CONGRESSMAN TOBY ROTH
IN SUPPORT OF THE US FOREST SERVICE TIMBER SALES PROGRAM
INTERIOR APPROPRIATIONS SUBCOMMITTEE
March 29, 1995

Mr. Chairman, I am here today to urge you and your colleagues on the Interior Appropriations Subcommittee to provide full funding for the U.S. Forest Service's timber sales program.

As you know, the Administration has called for an additional decrease in the timber sale program. From 1990 to 1994, program funding has declined by 60 percent. Obviously, the Forest Service timber sale program is not expanding out of control, despite the claims of the radical environmentalists. This program has taken major cuts. It can barely meet forest health and management needs.

Reductions in timber sales threaten not only the timber industry and our lumber supply, but also the proper management of our forests. Timber programs are vital for pest suppression, to maintain wildlife habitat, and to prevent wildfire.

Full funding of the timber programs is important not only for the physical health of the forest, but also for the fiscal health of the surrounding communities.

Our actions here have a tremendous impact, not only on logging communities and people involved in the industry, but on the entire United States.

As an example, let's look at my District--the North Woods of Wisconsin. Logging in the Nicolet National Forest directly provides 1,000 jobs. In fact, it supports the entire community. It is responsible for pumping $45 million into the local economy.

Furthermore, revenues collected by the Forest Service from national forest system lands are returned by law to the states where these lands are located. The states are required to use this money for schools and roads. The counties in and around the Nicolet were paid $585,000 in FY 1994.

The Forest Service timber sales program operates very effectively in Wisconsin. Our region, Region 9, led the nation with the highest sale program accomplishment level in FY 1994. Our preparation costs are the lowest in the nation.

If we cut timber sales, the North Woods area stands to lose millions of dollars in economic benefits, in infrastructure, and in income taxes due to increased unemployment.

Now, you may say that this is just a small segment of our economy and of our nation that is being impacted. The truth is, however, that our timber policy profoundly affects the economy of the whole country.

Harvesting of this wood doesn't just provide jobs in the logging industry, but in the lumber, housing, and paper industries as well.

It affects us all. For example, the price of lumber doubled in just over a year.

What does that mean to the average American? Let me tell you. It means that the cost of an average home has risen by $4,000.

So, you see, it isn't only small rural communities and specialized industry that are hurt by reductions in forest programs. It is Mr. and Mrs. America.

Finally, I would also like to urge the Subcommittee to support the Taylor Amendment provisions in the Interior Appropriations bill. As you know, this amendment to the Rescissions bill provides for an emergency timber salvage sales program.

The past few years have seen a stunning decline in the management and health of our forests. Over the last five years, an average of 6 billion board feet per year of timber has died on our national forests. Yet, the Forest Service timber salvage program averaged only 1.8 billion board feet for those years.

Four million acres burned last year. We spent $1 billion fighting wildfires. Scientists, resources managers, and citizens are calling for immediate intervention through logging. There is about 6 to 7 feet of burnt timber on the forest floor. This waste makes the entire forest susceptible to disease, to insect infestation, and to more wildfires.

That's why the Taylor Amendment is so important.

Mr. Chairman, we promised the American people a return to common sense government in our Contract with America. That's what this is all about. The timber sales program means jobs--jobs for the hard-working people of Forest, Vilas, and Florence, and Oneida counties. It means healthy, well-managed national forests. For the sake of these people and our forests, I urge you to fully fund the Forest Service timber sales program.

Mr. REGULA. I understand. Two questions: do you have hardwoods or soft?

Mr. ROTH. We have both.

Mr. REGULA. Both? And, secondly, do you have a multiple-use activity in addition to your forestry?

Mr. ROTH. Yes, we do.

Mr. REGULA. I would think that, as close as you are to urban populations, that there would be a lot of multiple use.

Mr. ROTH. There is a lot of multiple use, Mr. Chairman. As I said, we are doing a great—see, the thing is we have private forests; we also have Nicolet National Forest.

Mr. REGULA. Okay.

Mr. ROTH. And one of the things that we're concerned about is, because we have the forest there, we're losing a lot of tax revenue.

Mr. REGULA. Right.

Mr. ROTH. And so this creates a big problem for us, and then when the administration comes in and says, "We're going to cut back on the logging in the area," this has a tremendous impact not only on the loggers, but on the community, as you know.

Mr. REGULA. Are you on a sustained yield?

Mr. ROTH. Yes.

Mr. REGULA. Okay. Thank you very much.

Mr. ROTH. I thank you, Mr. Chairman. Thank you, Mr. Chairman.

Mr. REGULA. Thank you.

WEDNESDAY, MARCH 29, 1995.

BAY AREA RIDGE TRAIL

WITNESS

HON. TOM LANTOS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REGULA. Tom.

Mr. LANTOS. Thank you, Mr. Chairman.

Mr. Chairman, it's a pleasure——

Mr. REGULA. Your statement will be a part of the record.

Mr. LANTOS. I appreciate it. It's a pleasure to appear before you. I must admit I'm somewhat embarrassed I'm asking for so little money, but I hope you'll forgive me.

Mr. REGULA. We won't hold that against you.

Mr. LANTOS. I appreciate that, Mr. Chairman. [Laughter.]

I'm grateful to have this opportunity to appear before you as you prepare the appropriations legislation for the coming year. I would like to strongly recommend to the subcommittee a project that is most worthy of funding for Fiscal Year 1996. This is a public-private partnership endeavor which has the enthusiastic support of both my constituents and the constituents of the entire San Francisco Bay Area. In addition, there is strong bipartisan support among the northern California congressional delegation.

Mr. Chairman, I'm requesting $100,000 for the Bay Area Ridge Trail. As I have testified in the past before this subcommittee, the Bay Area Ridge Council is an exemplary example of community effort to establish urban and suburban green belts. Since 1987, the

Council has completed almost half of the 400-mile Bay Area Ridge Trail, which will cross through nine counties along both public and private property. Past funding through this committee has enabled this process to proceed in providing recreational opportunities near the homes of 6 million people in the larger Bay Area. While private funding for this project has reduced the Federal share dramatically, the $100,000 appropriation is vital for its continuation and success.

I deeply appreciate your support and willingness to listen to this plea, but I urge that this amount be appropriated for continuing the Ridge Trail.

[The statement of Mr. Lantos follows:]

CONGRESSMAN TOM LANTOS
12TH DISTRICT - CALIFORNIA

TESTIMONY BEFORE THE SUBCOMMITTEE ON INTERIOR COMMITTEE ON APPROPRIATIONS

March 29, 1995

Mr. Chairman, I am grateful to have the opportunity to appear before you today as you prepare the appropriations legislation for the coming year.

I would like to strongly recommend to the subcommittee a project that is most worthy of funding for FY '96. This is a public/private endeavor which has the enthusiastic support of my constituents and the constituents of the entire San Francisco Bay Area. In addition, there is strong bi-partisan support among the Northern California Congressional delegation.

Mr. Chairman, I am requesting **$100,000 for the Bay Area Ridge Trail.** As I have testified in the past, the Bay Area Ridge Trail Council is an exemplary example of community effort to establish urban and suburban green belts.

Since 1987 the Council has completed almost half of the 400 mile Bay Area Ridge Trail, which will cross through nine counties along both public and private property. Past funding through this committee has enabled this process to proceed in providing recreational opportunities near the homes of the 6 million Bay Area residents.

While private funding for this project has reduced the Federal share significantly, it is vital for its continuation and success.

The support of this committee for this valuable project is very much appreciated. I strongly urge that this amount be appropriated for the continuing development of the Ridge Trail.

Mr. REGULA. Tom, is this a trail that would be operated by a private group in the area?

Mr. LANTOS. Yes, yes. It's a nine-county Ridge Trail, and it's—frankly, half of it is operating, and it's sort of a very low-cost public/private——

Mr. REGULA. Will it be hiking?

Mr. LANTOS. Hiking, yes. Hiking, walking. It's really the recreation.

Mr. REGULA. Does it pass through existing park facilities?

Mr. LANTOS. Yes, it does, sir. Yes, it does. And it connects everything.

Mr. REGULA. Have we put some money in there in the past?

Mr. LANTOS. Yes, you have, sir.

Mr. REGULA. And the $100,000 would just supplement what's been done by the local community?

Mr. LANTOS. Absolutely.

Mr. REGULA. It sounds like an interesting concept. How many miles is it?

Mr. LANTOS. Four hundred miles.

Mr. REGULA. Four hundred miles?

Mr. LANTOS. Four hundred miles.

Mr. REGULA. Oh, wow.

Mr. LANTOS. I mean, it's——

Mr. REGULA. Where does it start then?

Mr. LANTOS. It basically surrounds the whole Bay Area.

Mr. REGULA. So it connects then?

Mr. LANTOS. It connects. It connects existing parks, private areas, city areas, State parks——

Mr. REGULA. Is some of the trail in the Golden Gate National Recreation Area?

Mr. LANTOS. Yes, it is.

Mr. REGULA. It sounds like a very worthwhile concept.

Mr. LANTOS. And it's really enormously inexpensive. I appreciate your comment, Mr. Chairman.

Mr. REGULA. Okay, thank you.

Mr. LANTOS. I consider it an encouragement. Thank you for hearing me.

WEDNESDAY, MARCH 29, 1995.

NATIVE AMERICAN PROJECTS AND OTHER NEW MEXICO ISSUES

WITNESS

HON. BILL RICHARDSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW MEXICO

Mr. REGULA. You're on. We'll put your full statement in the record, and you can tell us all the wonderful things you want to accomplish down in New Mexico.

Mr. RICHARDSON. Mr. Chairman, I'll be very brief. I know that you're busy.

Let me state that this committee, thanks to you and Mr. Yates, has been good to my State. My State probably has substantial Native American needs, as you know. We have—70 percent of our State is Federal lands. So anything relating to the Forest Service, the USGS, is very important.

Thirdly, Mr. Chairman, the State of New Mexico is very arts-oriented. So we have always had strong support from the Endowment from historic preservation funds, land and water conservation.

Mr. Chairman, what I have in front of me is a list, as has been the tradition with me and your subcommittee, is I leave the list with my request, my recommendations. Many of them are already funds that are in the budget, but I talk about support.

I do want to stress that it's my view that the Bureau of Indian Affairs needs substantial reorganization. I hope you support the efforts of the Reorganization Committee of the BIA that have submitted their report. The BIA is resisting this, and I would just like to reiterate the need——

Mr. REGULA. Is this a report coming out of the——

Mr. RICHARDSON. Right.

Mr. REGULA [continuing]. Natural Resources Committee?

Mr. RICHARDSON. No, this is a report done by a number of tribal leaders——

Mr. REGULA. Okay.

Mr. RICHARDSON [continuing]. On BIA reorganization.

Mr. REGULA. BIA is resisting what the tribal leaders want to do?

Mr. RICHARDSON. Right. The BIA likes to stay very status quo. They don't want change.

Mr. REGULA. Well, would the thrust of this be to give more responsibility to the tribes?

Mr. RICHARDSON. That's right, an increase in what are called self-governance projects and interests, and going directly to the tribes from the Federal Government, bypassing the BIA area offices, which——

Mr. REGULA. Well, isn't this part of the President's recommendation?

Mr. RICHARDSON. Yes. Yes, but the BIA resisted.

So, Mr. Chairman, I have, as I said, my list, and I hope in the days ahead I can speak to you privately, but, in essence, Mr. Chairman, that is——

Mr. REGULA. Well, Bill, as you understand, we're going to do the best we can. It depends a lot on what we get out of the budget allocation as to how much we can do. I know there are a lot of needs.

Are most of yours directed at the BIA?

Mr. RICHARDSON. Well, they're Native American projects in my State for the eight northern Pueblos, for the Navajos, some water table in part of Rio Rancho, which is in my district and Mr. Schiff's, historic preservation, but I would say a good chunk is Native American-related.

Mr. REGULA. Georgia O'Keefe is your famous citizen.

Mr. RICHARDSON. She's my constituent, and the public land trust is national—Dick Moore's organization is going to be purchasing the house to make it more accessible to the public. But she used to be my constituent.

Mr. REGULA. Okay. Thank you.

Mr. **Richardson.** Thank you, Mr. Chairman. And thank you for accommodating me the way you did this morning.

Mr. **Regula.** Yes, sure. No problem. Glad to do it.

[The statement of Mr. Richardson follows:]

Testimony of Congressman Bill Richardson
Before the House Appropriations Committee
Subcommittee on Interior and Related Agencies
March 29, 1995

Thank you, Mr. Chairman, Mr. Yates, and members of the subcommittee for the opportunity to testify today on several projects of the utmost importance to my Congressional district in New Mexico.

SOUTHWESTERN FISHERIES TECHNOLOGY CENTER

One of my highest priorities for the past several years has been to secure funding for the completion of the Southwestern Fisheries Technology Center (SFTC) which includes the Mora and Dexter National Fish Hatcheries in New Mexico. Your past support and assistance in securing funds to start this project is deeply appreciated.

As you may recall, I have requested money for the Mora National Fish Hatchery for the past several years. In 1993, the U.S. Fish and Wildlife Service combined the two fish hatcheries currently under construction in New Mexico into one program, the Southwestern Fisheries Technology Center. This combination will result in enhanced efficiency of construction and operation and save money in the construction of both centers. If the services of both facilities had not been combined, total costs would have increased by several million dollars and the utility of each would have been reduced.

The bipartisan New Mexico congressional delegation has supported this project from its inception in 1991 and we have actively sought funding for its completion. **I respectfully request the Committee provide $5.351 million for the completion of construction at Mora (with $650,000 of this funding to be specifically allocated for operating funds) and $3.824 million for the complete rehabilitation of the Dexter facility (for a total of $9.175 million).**

USGS/RIO RANCHO WATER TABLE STUDY FUNDING

The rapid growth of the greater Albuquerque area, which is fueled in large part by the expansion of the computer and electronics industries' expanding presence in the state, has created severe pressures on the region's already strained water usage. In fact, water use on Albuquerque's West Mesa (where many plant expansions and new homes have been constructed) has underscored the need for accurate, independent information on water usage by all sectors of the community.

Unfortunately, the U.S. Geological Service is unable to perform necessary water table studies because of a lack of funds. With the appropriate funding, the USGS would be able to fund the necessary evaluations of water use in the area and assist municipal officials in land and water use planning for the future.

I respectfully request the Committee specifically allocate $130,000 of the USGS FY 1996 budget for the evaluation and study of the water table on the West Mesa for the purpose of providing residents, local officials and businesses with an accurate accounting of water usage and availability.

JEMEZ SPRINGS COMMUNITY ASSISTANCE FUNDING

The recent establishment of the Jemez National Recreation Area in northern New Mexico has resulted in concerns in the nearby community of Jemez Springs that the new designation will lead to increased traffic, pollution and crime in the area. To assure that the Jemez Springs Sheriff and other public officials are prepared to deal with these potential problems, I would like to request community assistance funds from the U.S. Forest Service. **Therefore, I respectfully request $100,000 from the U.S. Forest Service Rural Community Assistance program for the community of Jemez Springs.**

TOWN OF TAOS/TAOS PUEBLO SETTLEMENT FUNDING

The Town of Taos and the Taos Pueblo have been locked in an ongoing dispute about ownership of, and responsibility for, many of the roads and alleyways within the Town of Taos which were once part of the Taos Pueblo. This long-standing dispute, which centered around which entity had jurisdiction over roads and alleyways has recently been resolved with the agreement that the Town of Taos will compensate the Taos Pueblo for the ownership and control of the streets and alleyways in question in the future. **I respectfully request the Committee provide $1.3 million in funding for the payment of the settlement.**

CLOVIS HOTEL RESTORATION FUNDING

The Clovis Hotel in Clovis, New Mexico, was, at the time of its construction in 1930, the tallest building in the state. It is now a vacant, deteriorating reminder of a glorious past when the Hotel was the centerpiece of downtown Clovis and a landmark known for miles around. Although nominated for placement on the National Register of Historic Places, civic leaders have in the recent past called for the buildings' demolition. More recently, a group of downtown business and landowners has petitioned the City Council to resolve the status of the Hotel with the primary goal of enhancing the "historic significance of the Main Street area" and making demolition the "last resort."

The Clovis Hotel has been called one of the "two or three most important Art Deco or Modernistic buildings in New Mexico." The State Historic Preservation Officer is a strong supporter of restoration of this facility. Its restoration and rehabilitation for use as a senior center, hotel, elder hostel or similar function would provide jobs in Clovis, improve the economy and provide a new magnet for businesses in the downtown area. **I respectfully request the Committee provide $2 million in Historic Preservation funds for the restoration of the Clovis Hotel.**

LAND AND WATER CONSERVATION FUND LAND ACQUISITION

GLORIETA BATTLEFIELD/PECOS NATIONAL HISTORICAL PARK

The Pecos National Historical Park was expanded in 1990 to include the Glorieta battlefield, a Civil War site dating back to a battle in March of 1862 which marked the turning point in the Civil War. The urban growth of the city of Santa Fe threatens the integrity of the park and commercial and residential development are encroaching on this historic site. Funding is urgently needed to acquire those lands in the Glorieta unit that are owned by willing sellers as soon as possible. **Therefore, I respectfully request $1.5 million from the Land and Water Conservation Fund for the acquisition of land within the Glorieta battlefield unit of the Pecos National Historical park from willing sellers.**

AZTEC RUINS NATIONAL MONUMENT

The Aztec Ruins National Monument is an outlying site of the Chaco Culture National Archaeological Site in northwestern New Mexico. The historic significance of this monument is enormous: the archaeological ruins of this and other related sites point to a civilization of people in the area from a very early time. Funding for land acquisition is urgently needed to protect Chacoan archaeological resources on private land within the boundary and to prevent development that would seriously adversely affect the values of the park. **Therefore, I respectfully request $500,000 from the Land and Water Conservation Fund for acquisition of land within the Aztec Ruins National Monument.**

PETROGLYPH NATIONAL MONUMENT

The Petroglyph National Monument was established in 1990 to protect nearly 7,100 acres of cultural rock art, totalling more than 15,000 individual examples. The monument is a sacred area for Native Americans and contains some of the most significant rock art of Indian and Hispanic cultures in the nation. The park's location is adjacent to the growing urban sprawl of Albuquerque. This proximity to New Mexico's largest city makes urban growth a significant problem. Because the park was only recently designated, critical acreage needs to be acquired as soon as possible to ensure protection from possible future development. **Therefore, I respectfully request $4.5 million from the Land and Water Conservation Fund for the acquisition of land within the Petroglyph National Monument.**

CIBOLA NATIONAL FOREST

Tres Pistoles Canyon in the Cibola National Forest is of national importance as a flyway for thousands of migrating raptors each year. Unfortunately, the area is under constant threat of development. The 437 acres of the canyon are the highest priority for acquisition by the Cibola National Forest staff and quite important for the entire Southwest region. **I respectfully request $1.6 million from the Land and Water Conservation Fund for the acquisition of 437 acres of land in Tres Pistoles Canyon in the Cibola National Forest.**

OTHER U.S. FISH AND WILDLIFE SERVICE (USFWS) PROJECTS

LADD S. GORDON NWR FEASIBILITY STUDY

The Ladd S. Gordon Wildlife Area near Tucumcari is a natural area now administered by the state of New Mexico. I believe the area has great potential as a National Wildlife Refuge. **Therefore, I respectfully request $50,000 for a feasibility study for the establishment of the Ladd S. Gordon National Wildlife Refuge near Tucumcari, New Mexico.**

USFWS NAFTA PROGRAMS

Environmental concerns associated with the economic and commercial development activities that will result from the passage of the North American Free Trade Agreement led the U.S. Fish and Wildlife Service to draft a strategy to work with all necessary partners in the U.S. and Mexico to protect and manage the region's natural resources for the continuing benefit of people in both nations. I strongly believe in the goals of this program and urge full funding of the entire USFWS NAFTA program. **In New Mexico specifically, I respectfully request $462,000 for Ecological Services programs, $50,000 in Migratory Bird programs, $330,000 in Law Enforcement activities and $350,000 in Fisheries programs.**

PARTNERS FOR WILDLIFE PROGRAM ON THE RIO GRANDE

The U.S. Fish and Wildlife Service administers the Partners for Wildlife program, an on-the-ground habitat program that plants grasses, shrubs and trees and creates, rehabilitates or enhances wetlands and uplands throughout New Mexico. Along the Rio Grande, this program focusses on making agreements with persons, municipalities, companies or other entities adjacent to the Rio Grande to facilitate restoration activities. **I respectfully request $200,000 for the USFWS Partners for Wildlife program on the Rio Grande in New Mexico.**

BOSQUE DEL APACHE NWR IMPROVEMENTS

Many of the existing facilities (structures, equipment, roads and buildings) on the Bosque del Apache National Wildlife Refuge (NWR) have been inadequately maintained for decades due to lack of funds. The area is in urgent need of funding for facilities rehabilitation and construction projects necessary for the continued safe operation of the Refuge. **I respectfully request $1.82 million in funding for construction of new service and storage facilities, complete replacement of obsolete heavy equipment and rehabilitation and upgrading of refuge roads and water delivery system at the Bosque del Apache NWR.**

MEXICAN WOLF REINTRODUCTION PROGRAMS

The U.S. Fish and Wildlife Service (USFWS) has identified the Mexican wolf as the most critically endangered subspecies of the gray wolf in North America. This animal, which historically occupied portions of Arizona, New Mexico, Texas and northern Mexico is currently the subject of a reintroduction program in New Mexico. Funding for this important program is vital to the continuation of the reintroduction of the Mexican Wolf in the wild. **I respectfully request $700,000 for the USFWS Mexican Wolf reintroduction program. Further I respectfully request the Committee fully fund the Administration's request for the continuation of the landmark gray wolf reintroduction program in the northern Rockies.**

NATIONAL BIOLOGICAL SURVEY

I would like to stress my support for the activities of the National Biological Survey and request that you fully fund the Administration's request for Fiscal Year 1996 funds for this most important Federal scientific research program.

DEPARTMENT OF INTERIOR HUMATE RESEARCH

Kewa Humates Inc. of Cuba, New Mexico, is currently developing uses for a 70 million year-old naturally compressed plant material called humate. Preliminary tests indicate that this material has successfully stimulated plant growth and may be useful as a natural fertilizer for replacement of disturbed vegetation. I understand that the Bureau of Land Management (BLM) has already conducted minimal research on humate which resulted in preventing watershed and soil erosion. I would strongly encourage the BLM to conduct final research which would lead to the designation of humate for these uses.

I respectfully request the Committee provide a recommendation for the Department of Interior to pursue the use of Humate as an organic alternative to chemical use.

HISTORIC PRESERVATION FUNDING

I respectfully request the Committee fully fund the Administration's request of $43 million for the Historic Preservation Fund in FY 1996. Of this amount, $7 million will be provided to the Trust for Historic Preservation, $2 million to Native American tribes, $2 million to Historically Black Colleges and Universities and the remaining $32 million will be divided among the 56 states and territories.

In my own state of New Mexico, the $500,000 that state officials receive every year is instrumental in funding many worthwhile restoration projects throughout the state. The state grants this money funds are matching grants, requiring at least a 40% match in state and private money; through the work of our State Historic Preservation Officer this modest amount is matched and leveraged into significant contributions to the preservation of our national heritage and revitalization of our communities and neighborhoods.

NATIVE AMERICAN ARTS IN PUBLIC PLACES

The City of Santa Fe, New Mexico is pursuing a project called "Native American Art in Public Places." The purpose of this project is to honor and recognize the contributions that Native Americans have made in shaping the culture of the city of Santa Fe and the state of New Mexico. The total budget for this project is $750,000. The city is currently pursuing federal, state, county, city and non-profit funding. **I respectfully request that the committee consider $250,000 for the "Native American Art in Public Places" project.**

NATIONAL ENDOWMENT FOR THE ARTS

I would like to stress my support for the National Endowment for the Arts. In New Mexico the National Endowment for the Arts has provided essential seed money for successful organizations that feed our local rural economies.

Let me share with you some of the projects in New Mexico funded through the NEA. Last year the NEA provided a grant for the Fund for Folk Culture to employee a technical staff persons. In turn the Fund helped 38 programs in 22 states bring quality programs to their communities. From helping the Navajo tribal leaders to record ancient folklore for developing precedence in the tribal courts system to preserving native South Carolina crops from extinction. Over the last 8 years the NEA has awarded grants to The Churches project which has successfully restored over 100 historic adobe churches and missions in New Mexico while teaching young people architecture and building skills. Projects like these are the fabric of the regional heritages that give America its identity of a mixing pot of many cultures.

As the federal government also thinks about cutting NEA I think that we have an obligation to look at the economic as well as cultural impact of the NEA. My state is a prime example of how art can stimulate rural and depressed communities which have few other resources. From the small seed dollars the NEA provides New Mexico creates jobs and fuel local economies. According to a study conducted by the New Mexico Arts Division, the arts industry in New Mexico contributes over $500 million to the State's economy and provides over 3,700 full- and part-time jobs. The NEA dollars are an investment in our local communities and their people. **I respectfully request that the NEA budget is no less than FY 1995 funding.**

EIGHT NORTHERN INDIAN PUEBLOS COUNCIL

The Eight Northern Indian Pueblos Council has been working on a regional substance abuse treatment facility for several years now and has developed an initial plan. I have worked very closely with Dr. Casias in reviewing the need for the facility. I strongly urge this Subcommittee to support the Council's request of $150,000 for preconstruction planning. The total cost of the project is estimated at $5,000,000.

NAVAJO NATION FAMILY PLANNING CORPORATION

On behalf of the Navajo Nation Family Planning Corporation, a non-profit health organization providing counseling and education services to the Navajos at IHS facilities in New Mexico and Arizona, I request that the Committee provide $569,000 to the Corporation in FY 1996 in order to fund cost of living adjustments which the Corporation has not had for the past three years, and the expansion of its current program to include adolescent pregnancy prevention.

JEMEZ IRRIGATION PROJECT

I support the request of the Pueblo of Jemez for $3 million for completion of Phase III of its irrigation rehabilitation and betterment project. The Pueblo is heavily dependent upon farming and needs replacement of its 1930 irrigation system that is slowly washing away. Congress has provided funding for the first two phases of the project, and all that needs to be finished is the lining of the lateral canals in Phase III -- the lifeblood of the irrigation system.

WEDNESDAY, MARCH 29, 1995.

NATIONAL PARK SERVICE

INDIANA DUNES NATIONAL LAKESHORE

WITNESSES

HON. PETER J. VISCLOSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

GARY L. NEALE, PRESIDENT AND CEO, NORTHERN INDIANA PUBLIC SERVICE INDUSTRIES

Mr. REGULA. Our next witness will be Congressman Visclosky.

So, Peter, we are happy to welcome you, and you can tell these young people [referring to members in the audience from Close-Up] what you want them to pay for. [Laughter.]

We're happy to welcome you. We'll put your full statement in the record.

And you're Mr. Neale?

Mr. NEALE. Yes, sir.

Mr. REGULA. Okay. All right, if you'll summarize.

Mr. VISCLOSKY. Mr. Chairman, I appreciate that very much.

First of all, it's my pleasure, I would note, that for the first time in 10 years testifying before the subcommittee to have a visitor from northwest Indiana with me, and it is Gary Neale, who is president and CEO of Northern Indiana Public Service Industries, I think a very responsible and benevolent corporate citizen of northwest Indiana. He's been very involved in economic development, as well as, I think, a very responsible member.

Mr. REGULA. What's the product?

Mr. NEALE. Electric and gas services——

Mr. REGULA. So it is a utility?

Mr. NEALE [continuing]. For all of northern Indiana.

Mr. REGULA. Okay. So it's a public corporation?

Mr. NEALE. Yes, sir.

Mr. REGULA. Okay. So you provide electricity and gas?

Mr. NEALE. We do electricity and gas, gas for all of northern Indiana and electricity for about the northern—for about two-thirds of northern Indiana.

Mr. REGULA. It's a pretty good sized company then.

Mr. VISCLOSKY. Yes, sir. And as chairman of the steel caucus, you'll appreciate, we keep the mills in the largest steel-producing congressional district in the country running.

Mr. REGULA. Well, they want to keep them as customers, too.

Mr. VISCLOSKY. Mr. Chairman, I just want to take this opportunity to, first of all, yourself and Mr. Yates, as well as all the members of the subcommittee, for your past generosity.

Mr. REGULA. I would call your attention to these. I believe that's in your district.

Mr. NEALE. It's Indiana Dunes.

Mr. VISCLOSKY. Yes, sir.

Mr. REGULA. Indiana Dunes, and is that your plant on the horizon?

Mr. VISCLOSKY. That is the city of Chicago, Mr. Chairman, the skyline, but the facilities are directly to the left of that picture that you're looking at, kind of northwest at that point in time.

Mr. REGULA. Okay.

Mr. VISCLOSKY. Mr. Chairman, again, I would want to thank you, Mr. Yates, and members of the subcommittee, for your past generosity.

And in the written testimony, I've made a number of requests for demolition money, as well as construction money, in support of an administrational request for an add-on for operation and maintenance that is sorely needed.

Mr. REGULA. Is this the Dunes?

Mr. VISCLOSKY. Yes, sir, it is, the Indiana Dunes National Lakeshore.

In my oral testimony, I would like to address the issue of land acquisition. And attached to my testimony is a letter from William W. Schneck, Regional Director of the National Park Service's Midwest Region, which indicates that in order to purchase properties currently under negotiation, additional hardship requests and Crescent Dune, the Indiana Dunes needs $5,083,000 in land acquisition funds for Fiscal Year 1996. I realize this represents 7 percent of the Clinton administration budget request for the Fiscal Year. However, I believe the figure is warranted.

The National Park Service currently has $900,000 in its account available for land acquisition at the Indiana Dunes. Acquisition negotiations currently in progress total $1,883,000, leaving the land acquisition account with a $983,000 shortfall just to meet current negotiations. The Park Service is also the recipient of numerous hardship requests. These total approximately $1 million.

And, finally, since 1976, Northern Indiana Public Service Company, the National Park Service, and local environmental organizations have been working to add Crescent Dune to the National Park. Here we are in 1995 looking at 1996, and we do have authorization for the inclusion of Crescent Dune. NIPSCO has been a benevolent and patient neighbor to the park. Unfortunately, funding shortfalls have prohibited the parcel's procurement. I am asking today that the subcommittee provide the necessary funds to bring this last areas of private and undeveloped northern Indiana lakeshore into the Indiana Dunes.

And if I could, I'd refer now to Mr. Neale.

Mr. NEALE. Thank you.

Mr. Chairman, I'm delighted to be here today, at the request of Congressman Visclosky, and before your subcommittee to request for land acquisition funding for the Indiana Dunes National Park.

As Congressman Visclosky said, I represent Northern Indiana Public Service Company. We've made significant contributions of real estate programs and to real estate programs in the Department of Interior. Just recently, we donated 600 acres of farm land in Jasper County to the Kankakee Marsh wetlands restoration project, which is funded partially by the Fish and Wildlife Service. Further, we're currently negotiating with the National Park, and close to agreement, on donating 116 acres of the Bailly Greenbelt adjacent to Lake Michigan. In fact, that's about a quarter of a mile down the beach from where that picture is taken. It's 116 acres which represents a buffer zone between our plant and Bethlehem Steel and the National Park.

Mr. REGULA. Do you have a coal-fired plant?

Mr. NEALE. We have a coal-fired plant right there on the beach, and there's 116 acres that had been reserved as a buffer zone between the park and our plant, and we're willing to donate that 116 acres to the National Lakeshore.

We think this is an important way of showing our interest in preserving land. This helps strengthen our communities and it strengthens everything that conservation is all about. But there's always a limit to what any company can do when its shareholders look at the situation. We've been asked to convey this Crescent Dune property now. It's been part of the——

Mr. REGULA. How many acres is this?

Mr. NEALE. Thirty-six acres. And it's been on the park list for about 18 years. We've held that property awaiting the park acquisition of the property and part of the Lake National Park——

Mr. REGULA. Does the Crescent Dunes have lakeshore——

Mr. NEALE. It's all lakeshore. Crescent Dunes, by definition, is a dune that's very similar to that picture. It's all lakeshore and it's between Mt. Baldy, which is the premiere elevation in the National Park, and our plant, and Michigan City, our park in Michigan City.

We have had an appraisal of that property at $4.2 million. That's a conservative appraisal. We had a developer look at the property and offer us up to $10 million long term if they could put condominiums on the property because the view of Chicago across the lake is exactly the same as you see in that picture.

Mr. REGULA. Right.

Mr. NEALE. It's been 18 years that we've been within the boundary of the Indiana Dunes National Park. Yet, after 18 years, we still have not been able to do anything with the property. We've maintained the property. We've been asked to hold it. We are not putting this property—we have to move this property. We can't keep living with this property at the rate we're going. We've got a number of assets in the company. With the new competition in the electric and gas industry, our shareholders are asking us to be more efficient. Part of being more efficient is to get rid of property that's not useful. So we really are in dilemma of whether or not we can—where to sell the property. We'd prefer to sell the property to the National Park Service. However, for 18 years we have been unable to do that. With our appraisal of $4.2 million, we'd be willing to even take a discount of $400,000 on the property and sell it to the Park Service for $3.8 million, but we need to do this in 1995.

Thank you.

I'd like to offer this complete written——

Mr. REGULA. Yes.

Mr. NEALE. That gives the facts and figures on the situation.

[The statements of Mr. Visclosky and Mr. Neale follow:]

PETER J. VISCLOSKY
1ST DISTRICT, INDIANA

COMMITTEE ON APPROPRIATIONS
CONGRESSIONAL STEEL CAUCUS
EXECUTIVE COMMITTEE CHAIRMAN
NORTHEAST-MIDWEST
CONGRESSIONAL COALITION
MIDWEST VICE-CHAIR
WHIP-AT-LARGE

Congress of the United States
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Washington, DC 20515-1401

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6070 CENTRAL AVENUE
PORTAGE, IN 46368
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VALPARAISO CITY HALL
166 LINCOLNWAY
VALPARAISO, IN 46383
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Testimony of
Representative Pete Visclosky

Before the House Appropriations Subcommittee on Interior

March 29, 1995

Thank you, Chairman Regula, Mr. Yates, and members of the Interior Subcommittee, for giving me the opportunity to testify before you today on the Fiscal Year 1996 National Park Service budget and the Indiana Dunes National Lakeshore. I want to also thank you for providing time for Mr. Gary Neale, Chairman, President and CEO of NIPSCO Industries, and responsible neighbor of the Indiana Dunes.

My appreciation goes out to the Subcommittee for its past support of the Indiana Dunes. The $750,000 provided in FY 1995 for land acquisition has already provided relief for many hardship acquisition cases. Construction funds set aside for the Goodfellow Camp will continue a decade-long plan for an overnight educational facility. This project is now in the early survey and design phase with plans to go to construction in September 1995.

The Indiana Dunes National Lakeshore is a national treasure. Founded in November 1966, the park is a retreat for over two million visitors annually. The park's 15,000 acres contain a unique series of features rolling back from Lake Michigan which form a living ecological laboratory. It was here that the science of plant ecology was developed in the early years of the 20th century -- the Indiana Dunes has the third largest number of vascular plant species of any national park, 1,400, although the park is only three percent of the size of the top two national parks. The geological history of continental glaciation and the formation of the Great Lakes are exceptionally well depicted in the landforms of this beautiful park.

This year, I return to request land acquisition funds for the Indiana Dunes. Attached to my testimony is a letter from William W. Schenk, Regional Director of the National Park Service's Midwest Region, which indicates that, in order to purchase properties currently under negotiation, additional hardship requests and Crescent Dune, the Indiana Dunes needs $5,083,000 in land acquisition funds for Fiscal Year 1996. I realize this represents seven percent of the Clinton Administration's budget request for FY 1996, however, I believe the figure is warranted.

The National Park Service currently has $900,000 in its account available for land acquisition at the Indiana Dunes. Acquisition negotiations currently in progress total $1,883,000, leaving the land acquisition account with a $983,000 shortfall just to meet current negotiations.

The Park Service is also the recipient of numerous "hardship" requests from homeowners within the authorized boundaries of the park who are pleading to be purchased. Many of these individuals are elderly and, having no possible buyer but the National Park Service, are forced to maintain their property on a very limited income. At my request, the National Park Service has provided examples of hardship requests which are attached to my testimony. Approximately $1 million is estimated by the National Park Service to purchase additional hardship requests.

Finally, there is a great need to acquire the Crescent Dune property. The parcel is considered a high priority property acquisition for the National Park Service and for its owner, the Northern Indiana Public Service Company, NIPSCO. The Park Service estimates $3.1 million will be needed to acquire Crescent Dune.

On August 30, 1976, Bennett Johnston, Senator from Louisiana and Chairman of the Senate Committee on Interior and Insular Affairs, published a report on H.R. 11455, legislation to enhance the Indiana Dunes National Lakeshore. This report makes the first of several legislative references to Crescent Dune:

> "This parcel contains about 30 acres at an approximate cost of $1,762,000. At the eastern extremity of the lakeshore boundaries, as presently drawn, is a small triangularly shaped tract between the shore and transmission lines from the Michigan City NIPSCO generating station. This was left out of the original park plan, although it would appear to be a natural extension of the beach. The land is the property of the power company.
>
> "This is a highly scenic sample of dunes shoreline, with a crescent-like formation of the beach that makes a pleasant little bay recently used for swimming...."

In the years since that language was written, NIPSCO, the National Park Service and local environmental organizations have been working to add Crescent Dune to the park. Language limiting the authority of the Secretary of Interior to purchase of the parcel through time restraints and dollar limits, threw the procurement to the courts -- despite the best efforts of all involved to make it a part of the park.

In 1992, the law was changed again. This time it untied the Secretary's hands to allow the parcel to be purchased without inhibiting restrictions. NIPSCO has been a benevolent, and patient, neighbor of the park. Unfortunately, funding shortfalls have prohibited the parcel's procurement. I am asking today that the Subcommittee provide the necessary funds to bring this last area of private and undeveloped Northern Indiana shoreline into the Indiana Dunes.

I also have two requests for construction at the Indiana Dunes: $410,000 for structural disposal including fuel tank and asbestos removal and destruction; and, $387,000 for a study hall-style facility at the Goodfellow Camp.

Restoration of residential sites to natural habitats is a primary aim of this urban park. The restoration process is divided into two phases. The first phase is the removal of structures, including hazardous materials like asbestos. The second phase involves restoration of the land to a natural environment and the removal of alien plant species. There are about 365 remaining reservations of use and occupancy (ROUs) in the Indiana Dunes. ROUs run through the year 2010 or for the life of the owner.

Unfortunately, at a cost of $41,000 per site, the removal structures and hazardous materials is very expensive. The Park Service has informed me that, by the end of FY 1996, 156 structures will require structural razing and hazardous materials abatement. By the year 2010, if no interim progress has been made, 264 structures will be awaiting destruction at a total cost of $14.9 million.

In the absence of funding, the National Park Service has been scrambling to avoid the presence of untenanted structures (which pose safety, security and aesthetic concerns) and has offered an extension of occupancy to expired ROUs through special two to five year Special Use Permits. I commend the Park Service for its efforts to creatively address this problem. Unfortunately, in some cases SUPs are not viable options and many structures remain abandoned. With no servicewide funding source for structural razing, asbestos mitigation and fuel tank removal, this problem will expand out into the future.

I am requesting $410,000 for FY 1996 to allow the Indiana Dunes to remove ten abandoned structures within the park. This is a modest start, although reasonable, considering the budget constraints we face.

Last year, the Subcommittee provided funding for initial construction of the overnight camp facility at the Goodfellow Camp. My request for this year, $387,000, will construct a study hall facility to provide opportunities for laboratory experience and audio visual education facility for those who use the overnight camp. Just last year, the Goodfellow camp provided more than 3,000 programs to 82,000, primarily elementary school, youngsters. The new money provided in last years' bill will help expand the facility to begin to provide more in-depth educational opportunities for middle school, high school, special needs education and adult education groups. The study hall/lab will provide instructional facilities to complement this high-quality outdoor environment.

Finally, I wish to express my strong support for the President Clinton's budget request to increase funding for Indiana Dunes operations by $423,000 to cover a Full Time Equivalent (FTE) increase of four employees and provide for increased maintenance needs at the East Unit Campground, the new Treemont picnic area, the new Inland Marsh Overlook, and the new West Unit hike/bike trail. The budget request points out that park interpretive programs now reach less than 10 percent of visitors and law enforcement personnel contact less than five percent. It is anticipated the funding increase will double public contact with interpretive programs and public safety personnel.

In closing, I greatly appreciate the assistance the Subcommittee has provided in the past and am grateful for your consideration again this year.

MARCH 3, 1849

United States Department of the Interior

NATIONAL PARK SERVICE
Midwest Region
1709 Jackson Street
Omaha, Nebraska 68102-2571

IN REPLY REFER TO

L1425(MWR-MLRD)

MAR 09 1995

Honorable Peter J. Visclosky
United States Representative
2464 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Visclosky:

Thank you for your February 28 letter to Superintendent Dale Engquist regarding funding for land acquisition at Indiana Dunes National Lakeshore, Indiana. This letter is in response to your inquiries.

As you know, the lakeshore was authorized November 5, 1966. Since that time, $75,961,269 has been appropriated for land acquisition at the lakeshore. Recent appropriations have been as follows:

Fiscal Year 91	$4,969,000	[NOTE: $2.2 million was taken in 1991 to fund law and order needs within the National Park Service, leaving a net balance of $2,769,000.]
Fiscal Year 94	$1,000,000	
Fiscal Year 95	$ 749,000	

We currently have slightly more than $900,000 available for land acquisition. This figure does not include funds set aside and obligated for filed condemnation cases. The majority of our land acquisition efforts over the last 18 months have been to accommodate landowners who have contacted us asking for early acquisition based on hardship situations.

It is somewhat difficult to report to you with confidence a schedule for spending the available funds. This is due to required actions beyond our control, such as delivery by contractors, presence of hazardous substances in properties, and landowner's response time. However, we believe our current funding could very easily be spent before the end of the current fiscal year.

We anticipate obligating $400,000 during March and an additional $110,000 before the end of May. In response to hardship requests from landowners, we plan to send offers this month for eight additional tracts at Inland Manor. Acquisition costs associated with these tracts are estimated to be approximately $450,000. We believe all of the above tracts could be purchased within the next three to five months, exhausting the funds currently available.

We have ongoing negotiations or contacts with owners of several other properties. Unfortunately, we now lack sufficient funds to complete these proposed transactions. We have three outstanding offers with landowners totalling $370,000. The owners have had these offers for some time and it is uncertain if the properties will be available to purchase at this price or time. Additionally, we are in the midst of obtaining appraisals or having discussions with owners of three fairly large, unimproved tracts. We should have appraisals for two of these tracts this summer. We have delayed ordering an updated appraisal for the third tract because we lack sufficient funds to acquire the tract. These owners all appear to be willing sellers if we can agree on price. We estimate the acquisition costs at $400,000. If sufficient funding becomes available in FY 96, we would either purchase or condemn these three tracts. We have reached an impasse with another owner on a tract of land valued at $153,000 and need to file a condemnation action to acquire the tract. Therefore, our unfunded needs for these seven tracts could approach $1,000,000.

There are three other areas needing additional funding. They are, hardship requests from the Inland Manor community, Crescent Dune, and the lakeshore's other priorities to protect threatened resources. Since the 1992 legislation, we have received, on average, two hardship requests a month from owners at Inland Manor. If that level of activity continues, we would need $1 million in FY 96 for Inland Manor alone. So far this calendar year, we have been contacted by five landowners requesting acquisition based on hardship situations. We will soon respond to these owners and inform them that we will not be able to accommodate their requests at this time due to insufficient funds.

Crescent Dune is currently valued by its owner, Northern Indiana Public Service Company (NIPSCO), at approximately $4.3 million and we have an appraisal of $2.2 million. Negotiations over these appraisals are ongoing. As you know, there is a long history extending back to 1976 regarding the proposed acquisition of Crescent Dune. NIPSCO is eager to consummate this transaction and we would like to acquire the tract as soon as possible to preclude any development or resource damages. The fair market value could run between $2.2 and $3.1 million which would be in addition to the amounts set out above for purchases of other tracts.

Based on our past level of activity, we believe we could obligate approximately $2 million in FY 96. This will include $1 million for the acquisitions we are currently dealing with, and $1 million for anticipated hardship requests from landowners. This $2 million does not include funding for the purchase of Crescent Dune. Please also understand that this does not include any additional funding to begin new acquisitions for high priority tracts which are or may become threatened if they remain in private ownership. Our ability to obligate these funds will be dependent on maintaining the current level of staffing in our land acquisition program.

A summary of the acquisition status is enclosed. If we can provide you with further information, please advise. Thank you for your continued interest and support of the Indiana Dunes National Lakeshore.

Sincerely,

William W. Schenk

William W. Schenk
Regional Director

Enclosure

cc:
Superintendent
Indiana Dunes National Lakeshore
1100 North Mineral Springs Road
Porter, Indiana 46304-1299 w/c enc.

Indiana Dunes National Lakeshore

Land Acquisition Funding Needs

Description of Lands	Estimated Cost	Funds Available
Funds Currently Available for land acquisition		$ 900,000
Properties anticipated to be purchased in March 1995	$ 400,000	500,000
Properties anticipated to be purchased by May 1995	110,000	390,000
Inland Manor - 8 tracts with pending hardship requests	450,000	- 60,000
3 outstanding offers to landowners	370,000	- 430,000
3 large, unimproved tracts which are being appraised or are in negotiation	400,000	- 830,000
Condemnation of 1 tract	153,000	- 983,000
Total needed to acquire properties currently under negotiation		-$ 983,000

****

Additional land acquisition which could be undertaken in FY96

Additional Hardship requests anticipated from Inland Manor residents	$1,000,000	-$1,983,000
Crescent Dune Acquisition	±3,100,000	- 5,083,000
Total land acquisition funds needed to fulfill anticipated needs in FY 96		$5,083,000

STATEMENT OF

MR. GARY L. NEALE

Chairman, President, and Chief Executive Officer

NORTHERN INDIANA PUBLIC SERVICE COMPANY

Hammond, Indiana

REGARDING

APPROPRIATION FOR LAND ACQUISITION

INDIANA DUNES NATIONAL LAKESHORE

CRESCENT DUNE PARCEL

Michigan City, Indiana

Submitted to:

Appropriation Committee

Subcommittee on the Interior

U.S. House of Representatives

March 29, 1995

Rayburn Building

Mr. Chairman, my name is Gary L. Neale, and I am Chairman, President, and Chief Executive Officer of NIPSCO Industries and its primary subsidiary, Northern Indiana Public Service Company, a natural gas and electric utility serving the northern third of Indiana. I am pleased to be here today with Congressman Peter Visclosky, and I thank you and the members of this distinguished subcommittee for the opportunity to support the request for land acquisition funding for the Indiana Dunes National Lakeshore.

NIPSCO has made several significant contributions of real estate to programs and agencies supported by the Department of the Interior. Most recently, NIPSCO contributed over 600 acres of farmland in Jasper County to the Grand Kankakee Marsh wetlands restoration project, funded in part by the U.S. Fish and Wildlife Service. Further, NIPSCO staff and National Park Service management are close to an agreement for the donation of 116 acres of the so-called Bailly Greenbelt adjacent to Lake Michigan in Porter County. These Natural Preservation Activities help strengthen the communities and customers served by Northern Indiana Public Service Company, and NIPSCO is pleased to support these environmental protection projects. However, there is a limit to any company's philanthrophy, and our owners, the shareholders of NIPSCO Industries, cannot convey the Crescent Dune parcel without fair and adequate compensation. I come today to ask Congress to appropriate 3.8 million dollars so that the National Park Service can enter into earnest negotiations to purchase Crescent Dune.

Page Two
Statement of Mr. Gary L. Neale
Appropriation for Land Acquisition
Indiana Dunes National Lakeshore
Crescent Dune Parcel
March 29, 1995

It has been 18 years since Crescent Dune was placed within the authorized boundary of the Indiana Dunes National Lakeshore. Year after year, for the past 18 years, NIPSCO has preserved the Crescent Dune property, awaiting final governmental acquisition. However, there were other National Park Service priorities, and NIPSCO has repeatedly been asked to "hold on" until the next funding round.

Now 18 years later, NIPSCO is preparing for the coming challenges and uncertainties of deregulation in the electric business. One of our strategies is to dispose of assets that are not necessary for continuation of core business. Crescent Dune is one of a dozen real estate parcels that are targeted for sale in 1995, because it is surplus to the utility's needs.

I would prefer to sell Crescent Dune to the National Park Service so that the public can enjoy the property. However, if funds are not appropriated, NIPSCO will be forced to find another buyer. We have an appraisal of some 4.2 million dollars for the property, and I will ask the NIPSCO Industries Board of Directors to contribute up to $400,000 to the government in a bargain price sale. The remaining 3.8 million dollars needs to be appropriated for the Park Service's acquisition of this exceptional piece of undeveloped lakefront property.

Thank you for your time and attention.

Page Three
Extended Statement of Mr. Gary L. Neale
Appropriation for Land Acquisition
Indiana Dunes National Lakeshore
Crescent Dune Parcel
March 29, 1995

The purpose of this extended statement to Mr. Neale's testimony is to supplement the record with some factual information supporting Mr. Neale's brief presentation.

This supplement has two parts.

1. Chronology of Events.

   The *Chronology of Activity and Events* included in this supplemental statement provides a brief history of the most relevant aspects of NIPSCO's owenrship history, from acquisition to the present.

2. Descriptive Data.

   Location Maps: Regional Map
   Area Map
   Neighborhood Map

   Survey of proposed taking, Crescent Dune Tract

   Photograph of Crescent Dune site

   Existing site descriptions

Chronology of Activities & Events
Crescent Dune, Michigan City, Indiana
through March 1994

Year	Action or Event
1926 - December 23	• NIPSCO purchases 36 acres of water frontage adjacent to its power generating station in Michigan City from Indiana Industrial Land Company. Sand mining contracts expire in the 1950's.
1961 - March 24	• Mount Baldy is sold by NIPSCO to Michigan City and subsequently donated to the National Park Service.
1976	• Legislation is passed in Congress to acquire Crescent Dune for inclusion into the National Lake Shore. Funds for purchase were not appropriated.
1976 - 1989	• Interior Department condemns Crescent Dune but later drops the case.
	• Various legal challenges by environmental groups were launched. Each decision affirmed that Interior has not met conditions of the 1976 Bill. Condemnation case is finally dismissed.

Page Five
Extended Statement of Mr. Gary L. Neale
Appropriation for Land Acquisition
Indiana Dunes National Lakeshore
Crescent Dune Parcel
March 29, 1995

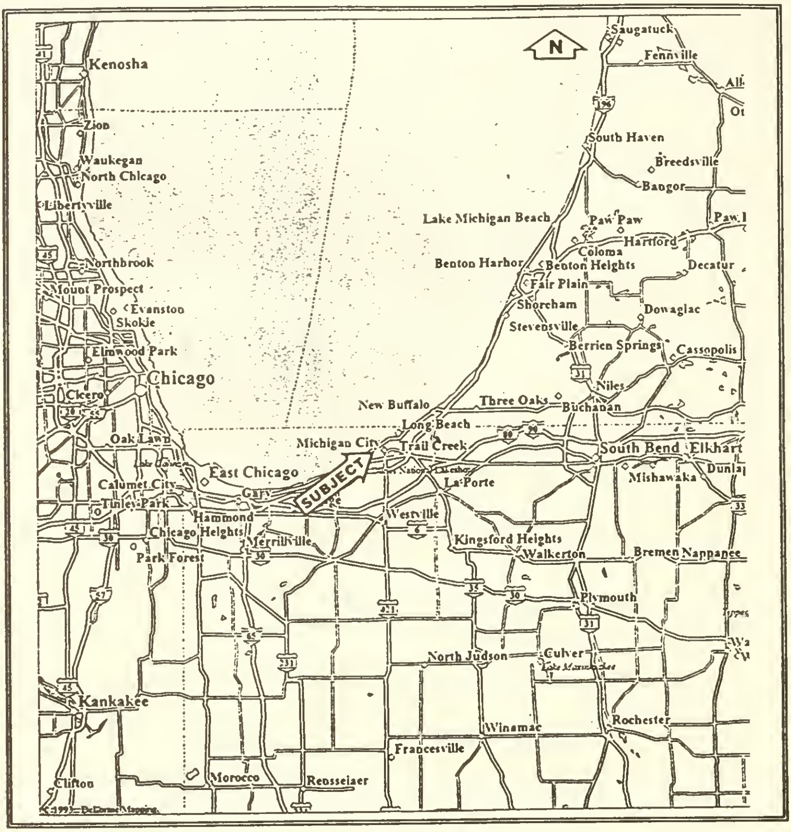
1989 - May-August	•	NIPSCO's consultant recommends a townhouse development and related amenities sensitive to the surrounding environment which would yield a ten million dollar ($10 million) return from the project.
1990 - March-July	•	The Michigan City business community expresses support for development.
1990 - July-November	•	Developer interest is strong. NIPSCO negotiates with two promising organizations. NIPSCO makes decision to enter into a development agreement with a strong experienced Midwestern developer.
1990 - Nov. - 1991 - Feb.	•	Development documents are negotiated and prepared.
1991 - February	•	Michigan City Council and Mayor officially vote to support NIPSCO's right to develop land in Crescent Dune.
1991 - March	•	Sale negotiations are jeopardized when new legislation is introduced to acquire Crescent Dune.
1991 - August	•	The National Park Service authorizes an informal appraisal of site.

1991 - November	•	Senate bill is re-introduced to acquire Crescent Dune.
1992 - April	•	Await formal approval of Senate Bill #1919. Work with Park Service re new appraisal.
1992 - October	•	House & Senate compromise bill approved for acquisition of NIPSCO's Crescent Dune et al.
1992 - November 19	•	NIPSCO meets with Fred Meyers at Park Service in Omaha. Acquisition process is discussed. Meyers states that they have insufficient funds to make a formal purchase offer even at the low appraised value of $2.2 million.
1993	•	NIPSCO asked to hold Crescent Dune until new appropriations bill.
1994 - March 15	•	F. Meyers sends offer to purchase Crescent Dune for $2.2 million.
1994 - April	•	NIPSCO meets with Park Service and both agree to exchange appraisals.
1994 - July	•	Park Service disagrees with NIPSCO appraisal of $4,273,500.
1994 - August	•	NIPSCO responds to Park Service.

Page Seven
Extended Statement of Mr. Gary L. Neale
Appropriation for Land Acquisition
Indiana Dunes National Lakeshore
Crescent Dune Parcel
March 29, 1995

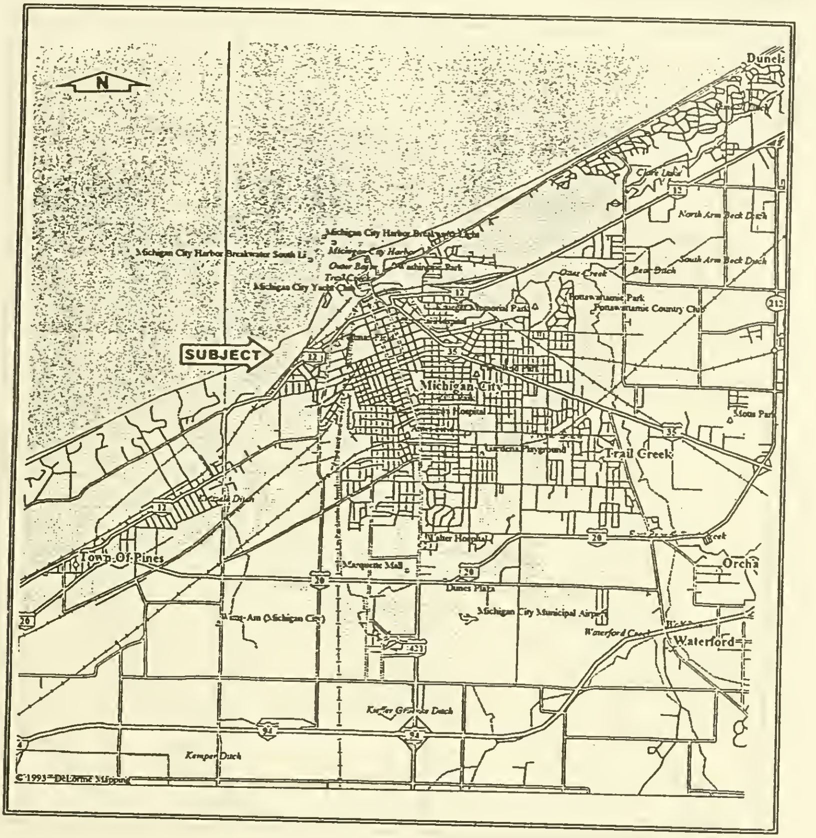
1994 - December	• Mr. Meyers retires from Park Service.
1995 - February	• Fred Suarez of the Omaha Office of the Park Service says that there are insufficient funds to make a formal purchase offer even at the low value of $2.2 million.
1995 - March	• Park Service agrees to review their appraisal.
	• Gary Neale, Chairman, Chief Executive Officer, and President of NIPSCO Industries testifies to Congress with Pete Visclosky requesting full funding for land acquisition at Indiana Dunes National Lakeshore.
	• If funding is not available, NIPSCO will be forced to find another buyer.

DESCRIPTIVE DATA



CRESCENT DUNE (TRACT No. 96-101)
MICHIGAN CITY, INDIANA
REGIONAL MAP

DESCRIPTIVE DATA



CRESCENT DUNE (TRACT No. 96-101)
MICHIGAN CITY, INDIANA
AREA MAP

LEGEND

- Population Center
- ○ State Route
- ▫ Geo Feature
- ◇ Town, Small City
- △ Hill
- ✚ Hospital
- △ Park
- Interstate, Turnpike
- US Highway
- Airfield
- ---- County Boundary
- —— Street, Road
- —— Hwy Ramps
- ═══ Major Street/Road
- ═══ State Route
- ═══ Interstate Highway
- ═══ US Highway
- +++ Railroad
- —— River
- ☐ Open Water

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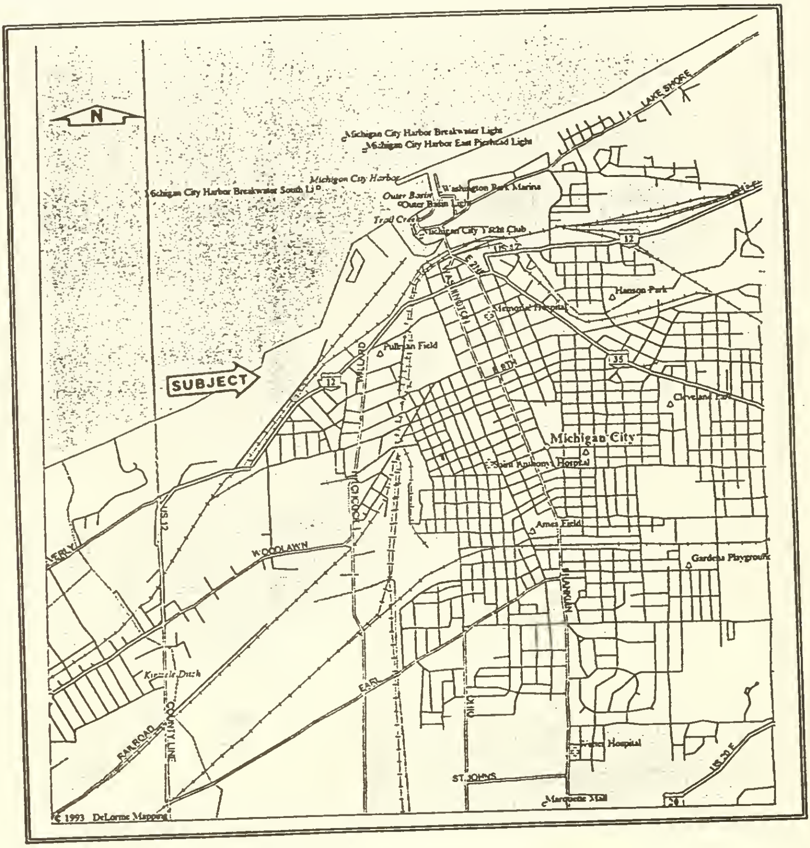
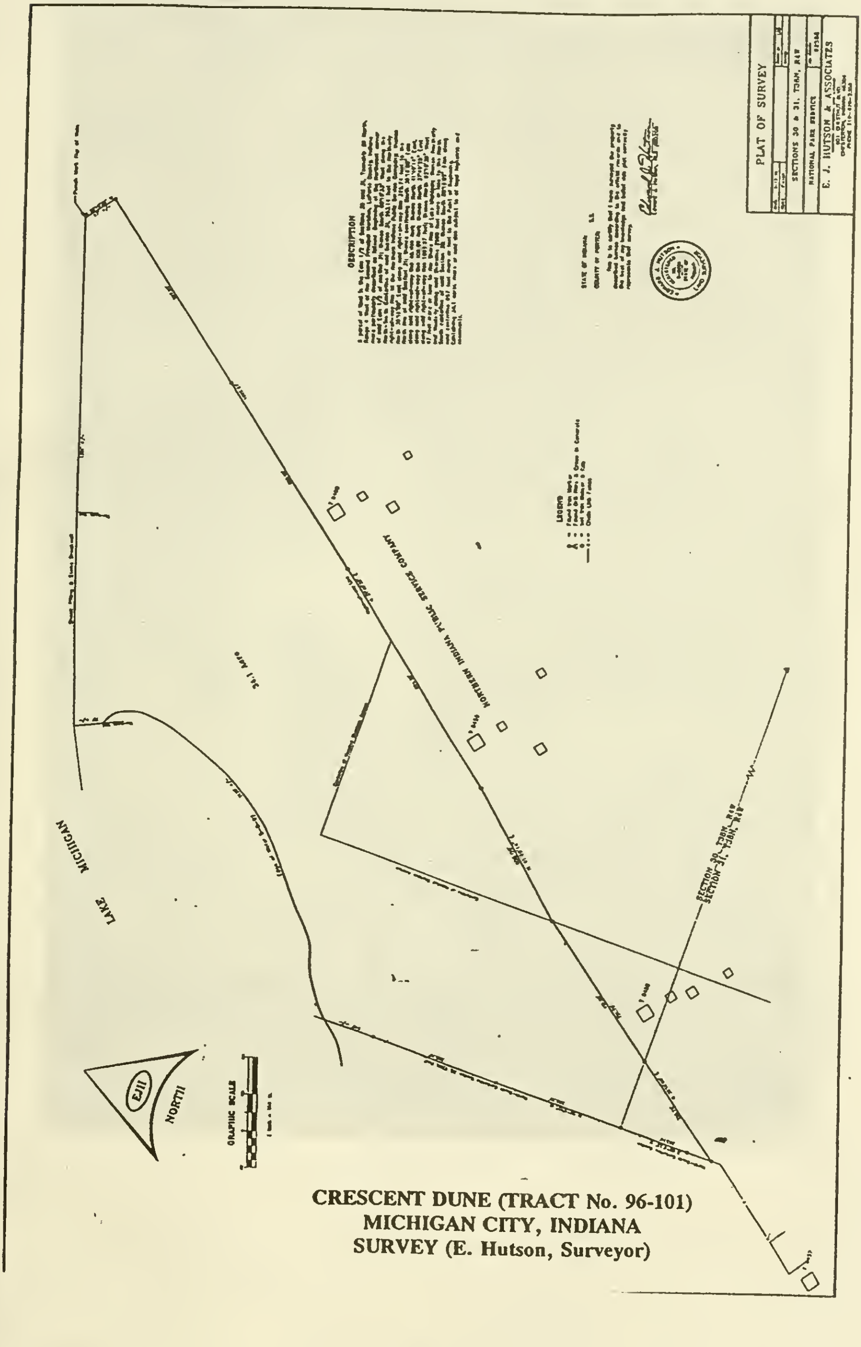
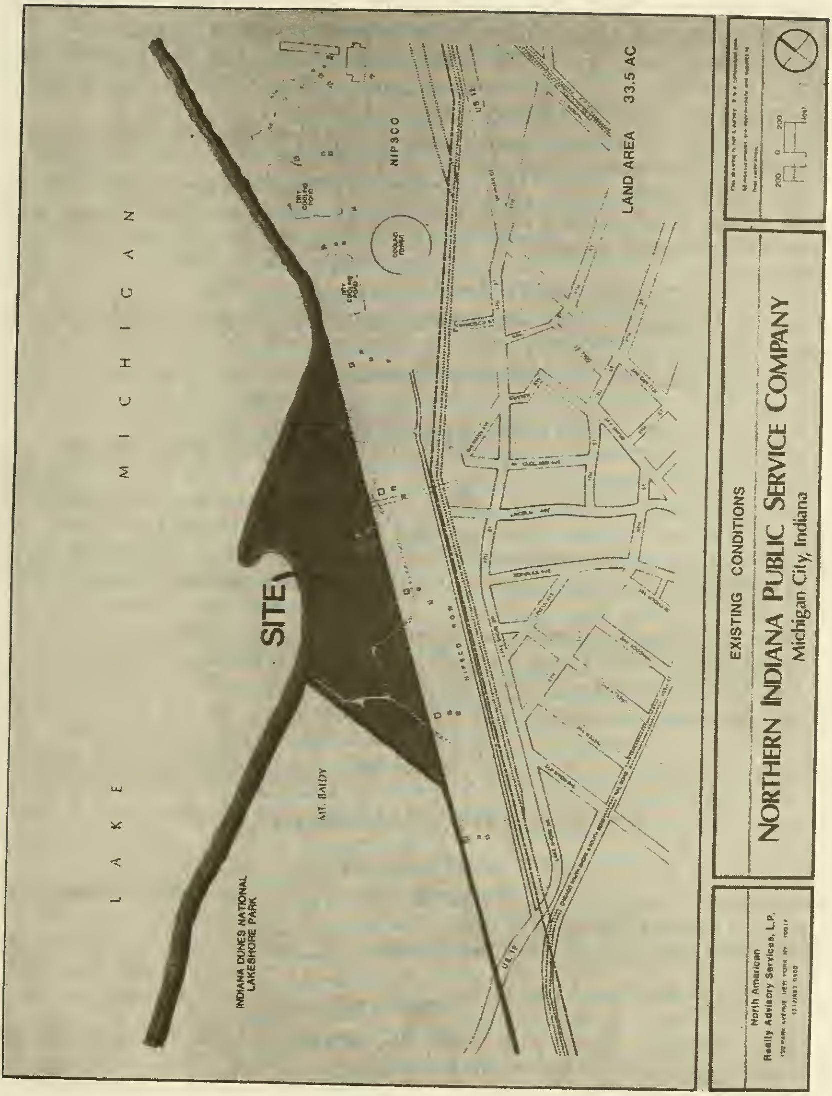


CRESCENT DUNE (TRACT No. 96-101)
MICHIGAN CITY, INDIANA
NEIGHBORHOOD MAP



CRESCENT DUNE (TRACT No. 96-101)
MICHIGAN CITY, INDIANA
SURVEY (E. Hutson, Surveyor)


LAKE MICHIGAN
SITE
MT. BALDY
INDIANA DUNES NATIONAL LAKESHORE PARK
NIPSCO
COOLING TOWER
DRY COOLING POND
NIPSCO ROW
US 12
LAND AREA 33.5 AC
EXISTING CONDITIONS
NORTHERN INDIANA PUBLIC SERVICE COMPANY
Michigan City, Indiana
North American
Realty Advisory Services, L.P.
200 0 200

Mr. REGULA. Well, I understand the dilemma, and, of course, is there any chance of stretching this over a couple of years?

Mr. VISCLOSKY. Mr. Chairman, the problem that we have, again, is we have the ongoing negotiations. We have hardship, and we have been at this since 1976, and it's the last——

Mr. REGULA. The only real estate you're addressing your remarks to is this particular piece; is that correct?

Mr. VISCLOSKY. Yes, sir, although, again, recognizing that we have those outstanding hardship claims. The problem I have with Crescent Dune is that it is the last undeveloped parcel on Lake Michigan.

Mr. REGULA. Yes.

Mr. VISCLOSKY. And it is of significant value to the National Park——

Mr. REGULA. When you say, "hardship," do you have some other properties?

Mr. VISCLOSKY. Those are for individual citizens——

Mr. REGULA. Yes, I said you have some individuals in the area that would like to sell?

Mr. VISCLOSKY. Exactly. But given the amount of dollars involved and given the tremendous time deferral of the issue, my preference at this point would be to solve this particular problem.

Mr. REGULA. This is more urgent than the others? Okay, thank you.

Mr. VISCLOSKY. Thank you very much, Mr. Chairman.

Mr. REGULA. We have a tough year, as you know.

Mr. VISCLOSKY. I understand that.

Mr. NEALE. Thank you, Mr. Chairman.

WEDNESDAY, MARCH 29, 1995.

DOLORES IRRIGATION PROJECT

WITNESSES

HON. SCOTT McINNIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO
JUDY KNIGHT, UTE MOUNTAIN TRIBE

Mr. REGULA. Good morning.

Mr. MCINNIS. Good morning, Mr. Chairman.

Mr. REGULA. We'll put your full statement in the record, and we're happy to hear your comments.

Mr. MCINNIS. Mr. Chairman, my comments will be very brief.

I guess the key point that I'd like to make to the committee is that this is another element of the 1988 Colorado Ute Indian Water Rights Settlement Agreement. This agreement is an Indian treaty, and I am very concerned that once again this country could be defying the arrangements we have made. As you know, there are certain environmental groups that are trying to encourage us to breach that agreement and are now using the budgetary stick as a method to walk away from the Indian treaty. So I'm here to urge today that we continue under the agreement that we made with the Native American Tribes.

And I also have, if you wish, from the Ute Mountain Ute group, Judy Knight. Maybe she'd like to make a quick comment.

Mr. REGULA. We'd be happy to hear from you.

Ms. KNIGHT. At this time the only thing I would like to express is, as he has stated, that we do have a water rights settlement which brought water to my reservation for the first time in over 100 years, and it's not fulfilled. We have a portion where we're still trying to get the funding. We're lacking $10.2 million to finish that, and I believe that it would be one of the first projects that would be finished in Indian country if we could get that funding.

Mr. REGULA. Where is this water from?

Ms. KNIGHT. The Delores McFee Dam. There are two water—two reclamation projects in the water settlement.

Mr. REGULA. Would this be brought in by pipeline?

Ms. KNIGHT. It's a cost-sharing agreement. The State paid for the pipeline to bring in treated water from the city of Cortez. That part has been done. We're trying to get the funding to finish the on-farm portion. A canal has been——

Mr. REGULA. Oh, irrigation ditches?

Ms. KNIGHT. Yes, at the laterals and the——

Mr. REGULA. Right.

Ms. KNIGHT [continuing]. Pivots is what we're trying to complete.

Mr. REGULA. Okay.

Ms. KNIGHT. And that's what we're lacking, is 10.2.

Mr. REGULA. So the water is there at a point, but you have to get a distribution system.

Ms. KNIGHT. We do have it 40 percent complete. We're just needing the funding to——

Mr. REGULA. What is this, an agricultural economy?

Mr. MCINNIS. It is, yes, agricultural and tourism. And it's also tied in, Mr. Chairman, to the Animas-La Plata Project. All of that is part of this agreement in Southern Colorado, and I think that the Animas–La Plata will be the last major water project built with Federal funds, but—out of necessity, because of the agreements that we've signed.

Mr. REGULA. We have some obligations?

Mr. MCINNIS. Yes.

Mr. REGULA. Thank you very much. Thank you for coming.

Mr. MCINNIS. Thank you, Mr. Chairman. We thank the committee for their time.

[The statement of Mr. McInnis follows:]

STATEMENT BY THE HONORABLE
SCOTT McINNIS
BEFORE THE HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

March 29, 1995

SUMMARY: DOLORES IRRIGATION PROJECT: $10.2 MILLION

Mr. Chairman, I appreciate the opportunity to testify before the subcommittee to express my support for the Ute Mountain Irrigation Project, or the Dolores Project.

The 1988 Colorado Ute Indian Water Rights Settlement Act authorizes the Secretary of the Interior to supply water from the Animas-La Plata and Dolores projects to the Colorado Ute Tribes. This final agreement was negotiated between the Ute Mountain Ute Tribe, the Southern Ute Tribe, the State of Colorado, local water conservancy districts, ditch companies, localities, and the Departments of the Interior and Justice. The construction of the Dolores Projects is a major element of this agreement. Making good on promises to Native Americans is a top priority, and so I am asking again for your further assistance in making that Act ring true, not hollow.

The United States government has an obligation to construct this project. By providing the necessary funding for this project, Congress is meeting its trust responsibility to complete the project in a timely fashion.

The Dolores Project is an example of what can be accomplished from such settlements. This Project provides educational and employment opportunities to Tribal members and will continue to contribute positively to the fundamental needs of the reservation for decades to come.

Mr. Chairman, I understand the serious fiscal constraints that this Congress is facing. However, I feel that treaties the United States negotiated with other parties should be a top priority. Therefore, I urge the committee to include the necessary $10.2 million for this project in this fiscal year's appropriation.

Thank you.

WEDNESDAY, MARCH 29, 1995.

THE PRESIDIO

WITNESS

HON. NANCY PELOSI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REGULA. Mr. Deutsch is not here, is he?

Okay, come on up, Nancy. Mr. Deutsch is not here yet. So we're happy to have you.

Ms. PELOSI. Thank you very much, Mr. Chairman. Thanks for the opportunity to testify this morning, but, more importantly, thank you for your leadership and your responsiveness to our concerns.

Mr. REGULA. Off the record.

[Off the record.]

Mr. REGULA. Back on the record.

Ms. PELOSI. There's a lot of history here. Anyway, I know your schedule is a tight one, and so I will——

Mr. REGULA. We'll put your full statement in the record.

Ms. PELOSI. Thank you, Mr. Chairman. I appreciate your attention to the concerns that we have about the Presidio in San Francisco. We're so proud that it has become part of the National Park Service on October 1 of 1994, and I'm here to request the support of the committee for the President's budget request of $25 million.

As you know, Mr. Chairman, the Presidio is one of the most historically significant sites in the United States, containing the finest collection of military architecture in the Nation. It has played a logistical role in every U.S. military engagement since the Mexican-American War. Fortified by the Spanish in 1794 against the British and Russians, by the Union against the Confederates during the Civil War, and against the Japanese during World War II, the entire Presidio is a national historic landmark.

Mr. REGULA. I hate to interrupt you, but was the Civil War actually in San Francisco?

Ms. PELOSI. Well, they had a fortification there by the Union.

Mr. REGULA. Really?

Ms. PELOSI. Yes.

Mr. REGULA. That's interesting.

Ms. PELOSI. Yes, it is, and that's why I mentioned it, because most people are not aware of that. In fact, when you visit San Francisco, you will see—I think it will be interesting to note how much of the engagements that we have been involved in for our country, to protect our country or to defend our Union, have had an historic relationship with the Presidio.

You'll hear tomorrow from the Park Service—in greater detail about the status of tenancies and their specific plans for this year and beyond. As you know, Mr. Chairman, I have tried with Presidio Trust legislation to change how the Presidio is managed. My legislation, which I introduced the other day in bipartisan fashion with Representatives Steve Horn and Ben Gilman, and was also introduced on the Senate side, would establish a Presidio Trust. Independent experts, business leaders, and the general management plan for Presidio all endorse the concept of a public/private management team to lease and manage the Presidio's properties. This bill would facilitate that.

In order to work in a bipartisan fashion with the Republican majority, we were asked—for a second opinion on the Presidio's financial viability. I convened a group of local business leaders to provide an independent review of the Presidio's financing management strategy. We had already studied 19 management models. We had a lot of pro bono work done for us from some of the leading accounting firms in the country, and the second opinion confirmed our thinking that the project is financially viable. But we needed certain business management ingredients to ensure its success and this review reinforced that.

So, in the light of the new political realities in the Congress, I've introduced a bill that is a bit different, working with the Republican side. It would produce revenues of $15 to $25 million over the next 12 to 15 years. The Presidio contains substantial buildings. Some of them have to come down, but it offers the unique opportunity for us to rent that space to generate revenue to maintain the Presidio. The Trust would lease and manage the Presidio's real estate.

With the highest regard for the Park Service and their role of interpretation, conservation, and preservation, the role of a real estate manager is something that I think would better be served by the Trust with managers who are experienced in real estate, so that we can get this moving, and get a revenue stream produced as soon as possible. This would protect the investment the Federal Government has made in the Presidio over the last 150 years. I want to just add that the $25 million is approximately one-third of what it was costing the Army to maintain the Presidio.

Mr. REGULA. But your bill provides for a scale-down?

Ms. PELOSI. A scaling-down.

Hello, Mr. Chairman—another Mr. Chairman.

I think the beauty of it is that it could serve as a model. We have a unique situation because of the hundreds of structures on the base that could provide a revenue stream. Some are deemed worthy historically and seismically, but those not I think we have to make a decision to eliminate some of those buildings. But those that can be profitable, we can invest in by having financial tools in the legislation which enable the lessor to borrow from a bank to do the rehab, thereby lessening the dependence on the Federal dollars. Our goal is to maximize access for the public to a public park with minimum cost to the taxpayer, and this legislation is key to that.

So I say that to you—now I know you're not the authorizing committee, but as appropriators to tell you where we go from here and that this is not just an endless request, but an investment that will reduce the cost to the taxpayer.

Mr. REGULA. Well, I think it's important that you get the authorizing bill, as you well know.

Ms. PELOSI. Yes.

Mr. REGULA. Okay.

Ms. PELOSI. But I appreciate your attention and your responsiveness and your assistance in the past and extend publicly an invitation to Mr. Skeen to come to San Francisco any time to visit the Presidio. Perhaps you can come when Mr. Regula comes on April

19, but if not, any time you wish to come, we'll be there to show you around.

Mr. SKEEN. Thank you very, very much, and you have an invitation to come to Kakatcho, New Mexico any time you desire. [Laughter.]

Ms. PELOSI. New Mexico, "the land of enchantment"—I love it.

Mr. SKEEN. We'd love to have you.

Ms. PELOSI. I accept your invitation.

Thank you, Mr. Chairman.

Mr. SKEEN. And I love San Francisco.

Ms. PELOSI. Thank you.

Any questions? Thank you, Mr. Chairman.

Mr. REGULA. Fine. Thank you, Nancy.

[The statement of Ms. Pelosi follows:]

STATEMENT OF REPRESENTATIVE NANCY PELOSI
BEFORE INTERIOR SUBCOMMITTEE ON APPROPRIATIONS
MARCH 29, 1995

Mr. Chairman, Members of the Subcommittee:

I am pleased to be here today to testify on behalf of the Presidio in San Francisco. The past support of this subcommittee, through Chairman Regula, Mr. Yates and other members, has been essential to planning for the Presidio's transition to a national park and to providing the support necessary for its success as a national park.

The Presidio is one of the most historically significant sites in the United States containing the finest collection of military architecture in the nation. It has played a logistical role in every U.S. military engagement since the Mexican American War -- fortified by the Spanish in 1794 against the British and Russians; by the Union against the Confederates during the Civil War; and against the Japanese during World War II. The entire Presidio is a National Historic Landmark.

In accordance with a 1972 law, this historic army post became part of the National Park System, included in the Golden Gate National Recreation Area (GGNRA), on September 30, 1994. Extensive studies and plans were undertaken during the transition period and these plans are now being implemented at the Presidio. You will hear from the National Park Service tomorrow in greater detail about the status of tenancies and their specific plans for fiscal year 1996 and beyond.

The first lease for space at the Presidio has been signed and I believe the Park Service is making good progress in their efforts to obtain tenants. While these steps are considered positive, real estate management of this enormity is extraordinary for the Park Service and that is why independent experts, business leaders and the General Management Plan for the Presidio all endorse the concept of a private-public management team to lease and manage the Presidio's properties.

To facilitate this goal, I have re-introduced legislation in this Congress to establish a Presidio Trust which would reduce federal costs for the Presidio. The concept of the Trust is based on the study of 19 management models by independent financial and real estate experts.

In order to provide a second opinion on the Presidio's financial assumptions, I convened a group of community business representatives in December to request their help in providing an informal, independent review of the Presidio's financing strategy. My basic questions were: from a business perspective, would you consider this project financially viable? If so, what business management ingredients would be necessary to ensure success?

In response to the request, the vice president for real estate from the Stanford Management Company, formerly with Trammell Crow, reviewed the financial implementation strategy for the Presidio and determined that -- yes -- with more private-sector skills and expertise, the Presidio would be considered economically sound and could produce $15-25 million a year over the next 12-15 years. A summary of the analysis is included for the committee's review.

Based on this financial outlook, which essentially confirms the general financial projections made by earlier analyses, I proceeded to revise my legislation from the last Congress (HR 3433) which passed the house and was reported by a 20-0 vote in Senate Committee. It was not considered by the full Senate in the final days of the session.

On March 22, I introduced HR 1296, which reflects a stronger private-sector management structure to create federal savings by managing federal assets at the Presidio in an entrepreneurial manner. Because the Presidio contains substantial building space, it offers an opportunity, unique within the National Park System -- to generate revenues from building leases. In order to realize the savings that this opportunity affords, a public-private management entity (Presidio Trust) with specialized financing and managerial expertise is needed.

The Presidio Trust would manage the renovation and leasing of specific Presidio properties transferred by the National Park Service. Ownership would remain vested with the federal government and the Presidio would be operated as a national park with the Park Service continuing its traditional management of open space areas and visitor and public safety services. For nearly 150 years, the federal government has invested in the Presidio as an army post -- at over two times its current costs. The best way to protect this federal asset is by creating a management and financial entity to enable the Presidio to be used to pay for itself. The Presidio Trust offers a good government approach that recognizes fiscal realities and offers a less costly, more business-like approach to the management of important federal assets at the Presidio. The Trust relies primarily on tenant financing with other borrowing subject to appropriations.

Mr. Chairman, I support the President's budget request for funding of $25 million to operate the Presidio in fiscal year 1996. I believe that costs for the Presidio can be reduced through the creation of a Presidio Trust -- an unprecedented goal within the National Park System.

Having heard the concern of many members about reducing the cost of government, and having sought the advice of business leaders, I believe I can safely say today, Mr. Chairman, that we are attempting to blend the best principles of private enterprise with the management of a national park. With your continued support, we will create a bipartisan model of public-private partnership that can be replicated elsewhere within government.

If you have not visited the Presidio to understand the history and natural and scenic resources that it brings to the National Park System, then you must plan a visit. I invite my colleagues to see firsthand this magnificent national resource.

Thank you, mr. Chairman and Members of the Subcommittee for your time today. I appreciate your efforts on behalf of the Presidio and look forward to continuing our work together to create a successful public-private management venture. Thank you.

Mr. Chairman, funding requests for two additional small projects are also included in my prepared statement:

1) Winter Run Chinook Salmon Captive Broodstock Program
The Committee provided funding in the past two years for the program which was authorized in 1994 and I am pleased to report that the program is accomplishing its stated goal of restoring this endangered species.

This year, I am requesting $100,000 from the U.S. Fish and Wildlife Service ~~and $300,000 from the Bureau of Reclamati~~on for this important program.

2) Water Reclamation Study
This study was authorized in 1993 as an innovative approach to provide an alternative supply of irrigation water to California's Central Valley region by exporting recycled water from the Bay Area.

The study has been under way for a year and Phase I is expected to be completed in October of this year. Full funding for fiscal year 1996 for the study is $1.5 million from the Bureau of Reclamation. The President's Budget includes $700,000. I hope the Subcommittee will determine a reasonable amount to allow the study to continue on schedule.

Thank you.

WEDNESDAY, MARCH 29, 1995.

EVERGLADES

WITNESS

HON. PETER DEUTSCH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. REGULA. Mr. Deutsch? We'll put your full statement in the record and we'd appreciate it if you'd summarize.

Mr. DEUTSCH. Thank you, Mr. Chairman. I appreciate it.

I'm going to focus—my testimony focuses on the work that this committee has done in terms of Everglades restoration and helping restore the Florida Everglades and Florida ecosystem. It truly is one of the success stories of government and of this Congress and of this subcommittee of the Appropriations Committee.

This has—there is no higher priority on a national scale in terms of ecosystem restoration than the Everglades restoration. It's been a bipartisan effort. Every Member in the Florida delegation is part of the Everglades caucus. We've been totally supportive across the aisle for this.

And there have been specific things that have been that we've seen changes in the ecosystem. We're on a path of success, and I guess what I would really sort of urge is let's stay on that path.

And in terms of the budget request that the President submitted, I would urge my support for three specific land acquisition projects within that budget. The Interior Department's No. 1 priority in the entire country is included in the Everglades ecosystem, the Everglades expansion of the Everglades National Park. That's their No. 1 priority in the entire country.

There's two other priorities within the Everglades system: Big Cypress National Preserve and the South Florida Restoration Grant. And, again, I'm sure you're familiar with the system. So these land acquisitions are essential to continuing that path to restoration.

There are two items that are not in the President's budget in terms of acquisition that really need to be as part of this Everglades restoration project. One is the land acquisition at the National Key Deer Refuge. There has not been funding for additional acquisition at that project for the last three years. It is clear that if we do not fund acquisition there, the species that is on the Endangered Species List, the developmental pressures—and, again, I, too, add my invitation for both the chairmen to visit south Florida, visit the Keys and actually see firsthand, if you haven't been there recently, just some of the development pressure that is occurring.

We have a case in the Key Deer area where we have willing sellers and sort of a willing buyer, but not the funds to purchase that property that really is needed, and if don't purchase it now, clearly, it's going to be much more difficult to purchase at any point in the future.

The other item that's not in the budget is the Seminole tribe water conservation agreement. Most of the Seminole Nation is within my district. Most of the tribal territories is actually within the Everglades area. As part of the restoration effort, the tribe itself has had an ongoing water conservation project where it is part of a whole big picture which is over a $60 million project. Providing that aspect of the Seminole lands, about $750,000, seems to fit the total restoration picture, which has not occurred yet in the President's proposal, and I would urge the committee to do exactly that.

Mr. REGULA. Thank you. And the Everglades is a classic example of unintended consequences.

Mr. DEUTSCH. Right.

Mr. REGULA. Mr. Skeen, any questions?

Mr. SKEEN. I have no questions, but I am very much interested in what he had to say and appreciate the effort.

Mr. DEUTSCH. Thank you very much.

Mr. REGULA. Thank you.

Mr. DEUTSCH. Thank you for your help.

[The statement of Mr. Deutsch follows:]

PETER DEUTSCH
20TH DISTRICT, FLORIDA

COMMITTEE ON COMMERCE

SUBCOMMITTEE ON HEALTH
AND ENVIRONMENT

SUBCOMMITTEE ON ENERGY
AND POWER

SUBCOMMITTEE ON COMMERCE
TRADE AND HAZARDOUS MATERIALS

VICE CHAIRMAN
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TESTIMONY OF REPRESENTATIVE PETER DEUTSCH BEFORE THE HOUSE APPROPRIATIONS COMMITTEE SUBCOMMITTEE ON INTERIOR

March 29, 1995

Chairman Regula and members of the committee, thank you for this opportunity to testify before the Interior Appropriations Subcommittee. I am pleased to appear before you to discuss the South Florida Ecosystem Restoration Initiative, and the Department of Interior's partnership with the State of Florida and its local communities.

Of the many important needs you will be considering this year, I urge the committee to favorably consider Interior's strong commitment to Florida's fragile ecosystem. The Florida Everglades is increasingly recognized as the foremost large-scale environmental problem in the entire United States. Without strong support from Congress, the Everglades will continue to shrink and die, adding to a long list of endangered species and threatening South Florida's economy.

However, I am pleased that the Administration has categorized the South Florida Ecosystem Restoration Initiative as a "priority investment" for FY'96. This designation indicates the Administration's continuing commitment to South Florida, as well as continuing faith in historically strong bipartisan congressional support. I also want to emphasize that while the federal government continues its significant commitment, approximately fifty percent of the total investment is borne by the state, local governments, and private entities.

I am also pleased that the Department of Interior continues to identify restoration of the South Florida Ecosystem as one of its highest priorities. The Everglades ecosystem contains seven units of the National Park and National Wildlife Refuge System. I strongly support the Administration's $61.9 million proposal for Interior's commitment to the restoration initiative. This program includes a number of research and monitoring activities that will facilitate sound land management strategies for Everglades National Park and other federal lands. In addition to those items already included in the Administration proposal, I also request that the committee provide:

(1) Funding for land acquisition at the National Key Deer Refuge, and;

(2) Increased funding for the Seminole Tribe's Everglades restoration initiative.

LAND ACQUISITION PRIORITIES

NATIONAL KEY DEER REFUGE

Request: $2,000,000 Interior -- U.S. Fish & Wildlife Service

Despite almost forty years of protection offered by the National Key Deer Refuge and almost thirty years of endangered species status, the population of Florida's Key deer continues in a downward spiral toward extinction. Listed by the federal government as an endangered species in 1967, the Key deer has been threatened with extinction for many years, beginning at the turn of the century when the species was intensively overhunted, to present day threats of habitat loss and traffic-related mortality.

Although land acquisition is identified as the single greatest need for protecting the Key Deer, the Administration makes no FY'96 request for this. The absence of funds in FY'96 would mark the third consecutive year without any land acquisition resources. Based on discussions with citizens, local government, civic and conservation organization, a $2,000,00 request is conservative and much-needed. These funds can be committed quickly to a number of identified willing sellers.

EVERGLADES NATIONAL PARK

Request: $5,000,000 Interior -- National Park Service

This request has been identified as the number one priority in the FY'96 National Park Service Land Acquisition Program. In addition, Everglades National Park has been granted international significance by the United Nations through three prestigious designations -- a World Heritage Site, an International Biosphere Reserve, and a Wetland of International Importance.

Public Law 101-229 authorized the addition of 107,600 acres to Everglades National Park, expanding the park into the Northeast Shark River Slough and East Everglades. The funds requested are necessary to acquire approximately 9,000 acres needed to maintain natural hydrologic conditions in the park. The funds will be used to continue the land acquisition program that commenced in FY'91. Consistent with statutory requirements, the State of Florida is paying a twenty percent share of the acquisition costs.

BIG CYPRESS NATIONAL PRESERVE

Request: $3,000,000 Interior -- National Park Service

Providing approximately fifty-six percent of the Water Entering Everglades National Park, the Big Cypress National Preserve is a critical link to the Everglades ecosystem. In addition, the preserve provides a habitat for thousands of birds, more than twenty rare or endangered animal species, and offers many recreational opportunities. The $3,000,000 request represents the federal share of acquiring 1,827 acres, pursuant to Public Law 100-301. The Act of April 29, 1988, expressed the intent of Congress that acquisition in the addition be substantially completed within five years of enactment.

SOUTH FLORIDA RESTORATION GRANT

Request: $4,800,000 Interior -- National Park Service

Public Law 103-219 of March 9, 1994, authorizes the grant of federal funds to the State of Florida for the acquisition of land adjacent to Everglades National Park known as the Frog Pond and the Rocky Glades Agricultural Area. Although these parcels are not within the current boundary of the park, their acquisition is nonetheless critical for restoring Everglades National Park. Acquiring these lands will facilitate the natural flow of water through Everglades National Park and into Florida Bay. The $4,800,000 request will be the third necessary federal installment to the South Florida Water Management District toward a total federal commitment of approximately $30,000,000.

ADDITIONAL PRIORITIES

SEMINOLE TRIBE EVERGLADES RESTORATION INITIATIVE -- Water Conservation Initiative

Request: $766,000 Agency: Interior -- Bureau of Indian Affairs

Because the Seminole Tribe believes that continuation of the unchecked degradation of the Everglades poses a threat to the very survival of the Tribe in its Big Cypress Homeland, they have long been an active participant in the development of state and federal plans for Everglades protection and restoration. Accordingly, the Seminole Tribe is undertaking an ambitious water resource program to treat and store Tribal surface waters, and to move quantities of surface water through the reservation and south into the Big Cypress National Preserve. This is an environmentally significant project which should be considered an integral part of the comprehensive South Florida Ecosystem Restoration Initiative.

In addition to the $400,000 already included in the president's budget for Seminole and Miccosukee tribal water studies, I support the Seminole Tribe's request for an additional

$766,000. As Chairman James Billie testified before this committee on March 13, 1995, this appropriation would initiate the a nine-year program encompassing: 1) The design and construction of Water Resource Areas (WRAs) containing surface water control systems that would abate and control nutrient run-off from land uses in seven sub-basins of the Big Cypress Reservation; 2) The design and implementation of Best Management Practices (BMPs) in each sub-basin to regulate nutrients in conjunction with water quality standards and requirements, and; 3) Research to monitor and measure the success of the BMPs, the performance of the WRAs, and to identify other sources of nutrient pollution.

Recognizing the current budget crisis, the tribe has scaled down its FY'96 plan to the most conservative request possible. I greatly appreciate the committee's hopefully favorable consideration of this important request.

SCIENCE AGENCY FUNDING

I want to emphasize that the Everglades Restoration Initiative would be a misguided effort without the scientific guidance provided by the U.S. Geological Survey (USGS) and the National Biological Service (NBS). These agencies provide the information necessary to determine the complex needs of an extremely delicate ecosystem. The road to restoration begins with science, and it would make little sense for me to make recommendations to this committee without scientific justification. Accordingly, I support full funding for the USGS and the NBS.

USGS and NBS information helps the Army Corps of Engineers, Everglades National Park, Florida Department of Environmental Protection, and South Florida Water Management District set ecological goals, predict the consequences of varied management alternatives, provide yardsticks to measure the success of the restoration, and manage the natural resources of the system. Both agencies are key participants in the Federal South Florida Restoration Task Force and its associated work groups and coordinate their efforts with Federal, State and local partners. NBS currently co-chairs the Task Force's Science Subcommittee whose charge includes recommending research and a process for coordinating research on the South Florida ecosystem. In FY'96, NBS scientists will be working with the USGS and others to develop regional-scale ecosystem and hydrological models. These models must be in place to evaluate proposals for restoration of the South Florida Ecosystem.

Chairman Regula and members of the committee, thank you for this opportunity to testify. I look forward to continuing work with you on the articulated federal commitment to the South Florida Ecosystem Restoration Initiative.

WEDNESDAY, MARCH 29, 1995.

NATIVE AMERICAN PROJECTS

D.C. BOOTH HISTORIC FISH HATCHERY

FOREST SERVICE

U.S. GEOLOGICAL SERVICE

NATIONAL PARK SERVICE

WITNESS

HON. TIM JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH DAKOTA

Mr. REGULA. Mr. Johnson, we'll put your entire statement in the record.

Mr. JOHNSON of South Dakota. Well, thank you, Mr. Chairman, Mr. Skeen. I appreciate the opportunity to have a few moments to share some thoughts with you this morning.

I want to thank you and the subcommittee for your past support of a number of projects in my State of South Dakota. I represent the entire State of South Dakota. And, again, my full statement outlines in much greater specific detail the agenda for our State.

I'd like to just touch on a couple of items that we have in particular specificity. I am pleased that the administration's budget does call for some upward adjustment of BIA and IHS budgets. However, I do recognize the very severe budget constraints that your subcommittee is going to be under. I do want to stress, however, that I'm hopeful that we can continue to meet our commitments to our trust responsibilities to the Indian people of the Nation.

Among those commitments it seems to me ought to be of high priority are those related to education. Fifty-six percent of our American Indian population in this country is 24 years or younger, and I've been in the past discouraged about levels of support from BIA and ISEP funding as well. We have insufficient facility and operational money in the education area, and I think if we're going to truly make progress in furthering the cause of self-sufficiency and independence of the Indian peoples, it's going to be in large part through our commitment to upgrade their educational and job skills.

A lot of what we spend in Indian country goes for social programs, frankly, and I think that sometimes we neglect the investments for economic growth. And one of the areas that I'm hopeful that this subcommittee can see its way to help us on is with the Intertribal Bison Cooperative, which develops and supports buffalo business ventures among its 36 member tribes, and I think serves——

Mr. REGULA. And I think they testified——

Mr. JOHNSON of South Dakota. Yes, but I'm pleased that they have because it's a little, small-scale thing, but it's still, I think, been a real success story, and it's yet one more piece of the puzzle as we work our way toward trying to develop greater self-sufficiency and independence from government, and to develop a more private economy in Indian country.

As well, I'm hopeful that the infrastructure needs relative to law enforcement and tribal judicial systems on reservations can be enhanced. One of the things that I think chills private investment in Indian country is a lack of confidence in the professionalism of the judiciary in reservation country, and I think that it's going to be essential that they would place some priority there.

Two of the projects I want to just briefly touch base with is the D.C. Booth Historic Fish Hatchery in Spearfish, South Dakota. We're very grateful of your past support. This involves a one-of-a-kind, 10,000-square-foot national historic fishery records and archives center. With the rehabilitation effort of the hatchery now nearly completed, the hatchery urgently needs $300,000 for startup operations funding to put the facility online, and I think that this would be a very well-spent item.

And, second, I want to call attention to a request for $1.9 million for the construction of a new facility for the Forest Service Research Station in Rapid City, South Dakota. It's my understanding that the project is the top priority for the Forest Service for research construction, but has not been funded because of lack of funds. The current facility is wholly inadequate, is energy-inefficient, has a leaking roof, and it in dire need of replacement.

I, again, appreciate the very—the enormous wish list agenda that is no doubt is before your subcommittee, but thank you again for what has been, I think, a very careful and considerate to these matters in the past, and I'm hopeful——

Mr. REGULA. We'll do the best we can within the constraints of the budget.

Mr. Skeen.

Mr. SKEEN. I appreciate Congressman Johnson's effort, and we both share some of the responsibility; we have a lot of Native Americans in our districts. And I'm particularly interested in the Indian Health Service, IHS, and some of those problems. I appreciate the fact that you're doing a good job of representing your folks. And I think what we ought to do is that those of us who have this responsibility ought to get together once in a while to compare notes because I think that there's a lot of similarity, but then there's also a lot of differences in the way we're handling it on the State level——

Mr. JOHNSON of South Dakota. There's real diversity——

Mr. SKEEN [continuing]. Particularly on the sovereignty problem.

Mr. JOHNSON of South Dakota. Right. The sovereignty problem seems to be a great one. On the IHS side, we have some very impressive new facilities in South Dakota, but in too many instances, frankly, the funding's not there to staff them——

Mr. SKEEN. Precisely.

Mr. JOHNSON of South Dakota [continuing]. And it is an example to Indians and non–Indians alike of lack of foresight or carry-through on the part of the Federal Government, and it's something that we do need to address.

Mr. SKEEN. Well, I think it's about time we took some of these agencies to task——

Mr. JOHNSON of South Dakota. Right.

Mr. SKEEN [continuing]. And sit down with them and say, "Look, let's either get the job done or rearrange your agendas."

Mr. JOHNSON of South Dakota. That's right.

Mr. SKEEN. Because we're pouring money down this thing and they're not doing the people any good.

Mr. JOHNSON of South Dakota. Right, right. And greater coordination among all Federal health care facilities, whether it's DOD and VA and IHS, and whatever.

Mr. SKEEN. Absolutely.

Mr. JOHNSON of South Dakota. I just probably want to thank you.

Mr. SKEEN. Thank you, Mr. Chairman.

Mr. REGULA. Thank you for coming.

[The statement of Mr. Johnson of South Dakota follows:]

STATEMENT OF THE HONORABLE TIM JOHNSON

SUBCOMMITTEE ON INTERIOR
HOUSE COMMITTEE ON APPROPRIATIONS

THE HONORABLE RALPH REGULA

MARCH 29, 1995

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to express to you my support for funding of several projects and programs administered by the Bureau of Indian Affairs, the Indian Health Service, the Forest Service, the National Park Service, the US Geological Survey, and the US Fish and Wildlife Service which affect the state of South Dakota. I appreciate the commitment your Subcommittee has shown in addressing the needs of South Dakota and for your efforts on behalf of American Indians across the nation and in South Dakota. There are nine federally recognized tribes in South Dakota, whose members collectively make up one of the largest Native American populations in any state. At the same time, South Dakota has three of the ten poorest counties in the nation, all of which are within reservation boundaries. I certainly understand the constraints placed on Congress and this Committee by our efforts to reduce the deficit, and as always I do not envy the difficult choices your Committee has to make this year. Nevertheless, we still have pressing Tribal and non-Tribal needs that must be addressed. I will divide the remainder of my written testimony into segments based upon general subject areas of BIA administration, as well as a listing of non-tribal needs. The Subcommittee has already heard from most if not all of those listed below.

TRIBAL NEEDS

EDUCATION

Foremost in priority for South Dakota tribes is the education of Indian youth. 56% of the American Indian population in this country is age 24 or younger. Consequently, the need for improved educational programs and facilities, and for training the American Indian workforce is pressing.

I support the Sisseton Wahpeton Sioux Tribe's request for funding of Phase 1 for the construction of a new K-12 school. Tribal enrollment for grades K-12 has doubled in the past 4 years and is expected to double again by the turn of the century. As you know, the tribe has engaged in frustrating piecemeal repairs of the aging *Tiospa Zina Tribal School*. At this point, it would be cost effective to get the BIA to add the new school to its construction priority list. The Tribe is also requesting construction of a new school at Enemy Swim. The existing *Enemy Swim Day School* was built in 1938. A recent BIA Office of Indian Education report concluded that there is no way to bring the existing facility up to current building safety and handicap code. Based on the rapid growth of the student population, a new facility is imminent.

I also support the Cheyenne River Sioux Tribe's request of $800,000 for the *Takini School* to address the lack of per student funding, to provide an additional high school facility, and for general upkeep.

I cannot state strongly enough my support for the *Tribally Controlled Community Colleges*. Simply put, the tribal colleges in my state and those across the country are success stories and they deserve more funding from the BIA. I support the request of the American Indian Higher Education Consortium for full funding for the 29 tribally-controlled colleges as authorized under the Tribally Controlled Community Colleges Act.

I support the request of the *United Tribes Technical College* in North Dakota for $2.522 million for their Direct Cost base. UTTC's students represent 45 different Indian Nations and 15 states, including 60+ South Dakota students. UTTC is at the forefront of helping Indian people become self sufficient and deserves full Congressional support.

ECONOMIC DEVELOPMENT

Federal expenditures for social programs continue to exceed investments for economic growth in Indian Country. I feel strongly that the role of the federal government must be to encourage tribal self-sufficiency at every opportunity. While a solid educational base is invaluable to that end, I believe the BIA must prioritize programs which develop infrastructure on reservations and enhance economic growth for tribal communities.

An excellent example of federal investment in tribal self sufficiency is *The Intertribal Bison Cooperative* (ITBC). The ITBC is a cooperative, composed of 36 member tribes located in 15 states, with 100% of its funds going toward development and support of Indian and tribal buffalo business ventures, apportioned between tribal projects and funding for the ITBC national office. I strongly support the ITBC's request for continued funding of $2.6 million through the BIA for bison enhancement projects on tribal lands. Seven tribes in my state (Cheyenne River, Crow Creek, Flandreau Santee, Lower Brule, Sisseton-Wahpeton, Standing Rock, and Yankton) are members of the ITBC and would benefit from this funding. The ITBC has made important and impressive strides since its inception in 1991 and has developed exacting criteria to evaluate tribal projects and applications, and cooperative membership continues to expand.

I would like to take this opportunity to inform the Chairman of the BIA's recent actions relative to the ITBC. The BIA is considering distribution of previous years' ITBC funding to non-ITBC member tribes at the discretion of the BIA, based on the unclear appropriations language of previous years. Since these funds were secured through annual appropriations at the request of the ITBC, I believe this action by the BIA violates the intent of the Appropriations Committees. I am requesting that your Subcommittee specifically identify "ITBC designated projects" as the recipient of appropriated funds for FY '96 and future appropriations.

HEALTH

I support the Yankton Sioux Tribe's request of $9.2 million for construction and $4.9 million for operating costs to re-open the *Wagner IHS Health Care Facility* inpatient services which were closed without sufficient and required notice in 1992. In addition to a dramatic reduction in the availability of care for this rural region, closing the inpatient services has lead to losses in Medicare/Medicaid third party collections exceeding $600,000 so far, which I believe the IHS can ill afford.

I would like to bring the Chairmen's attention to the needs of the *Eagle Butte Dialysis Center* , a tribally managed dialysis facility built through privately donated funds and equipment exceeding $100, 000, and serving the Cheyenne River Sioux and other Indian communities. The Dialysis Center has requested only $11,750 for completion of the facility, which would cover such basic and much needed items as concrete handicap access ramps and counter tops for exam rooms.

I also strongly support the Aberdeen Area Tribal Chairmens' Health Board request of $40,000 for a comprehensive *Death Investigation Study* to be administered by the Aberdeen Area Indian Health Service and the Chairmen's Health Board. I believe this study would provide insight into the high mortality rate on reservations and would lead to better preventive health measures throughout Indian Country.

LAW ENFORCEMENT/TRIBAL COURTS

The federal government must continue its support of tribal self governance, authority over law enforcement, and tribal judicial systems on reservations. Many tribes lack the resources for adequate law enforcement and just administration of tribal courts.

I support the Oglala Sioux Tribal Public Safety Commission's request of $3.8 million for equitable police officer salaries under the Federal Law Enforcement Pay Reform Act of 1990, increased detention facility staff, and communications equipment. The OST Public Safety Commission provides law enforcement for the Pine Ridge Reservation, the second largest reservation in the nation. Without the flexibility to hire more officers, this vast, rural reservation will remain inadequately patrolled.

I am also in support of Sisseton-Wahpeton Sioux Tribe's request for $1.2 million to provide tribal court services in compliance with standards set by the Indian Tribal Justice Act of 1993.

NATURAL RESOURCE MANAGEMENT

There are roughly 4.5 million acres of land in trust for Indians and tribes in South Dakota. Indian culture has always involved reverence for land, and I believe the federal government needs to encourage a sound conservation relationship between tribal and non-tribal lands through full funding of tribal environmental protection and resource management efforts.

I support the request of both the Lower Brule and Yankton Sioux Tribe for $111,000 to fund a 12-week conservation enforcement training curriculum through the Wildlife and Parks budget of the BIA's Fish, Wildlife and Recreation Program. The program would provide 24 Indian students with law enforcement training so that tribal conservation efforts can be maintained.

While the above outline does prioritize the funding requests of many tribes and tribal organizations in South Dakota for FY '96, there are a number of equally meritorious programs in need of support that I have not mentioned. I will be contatcting the Subcommittee in support of those prorams which I feel should be brought to your attention in the coming weeks.

NON-TRIBAL NEEDS

Mr. Chairman, I appreciate the attention the Committee has given to South Dakota's needs in recent years. In addition to the funding necessary for our Indian people I am also requesting appropriations for several other important projects and programs.

D.C. BOOTH HISTORIC FISH HATCHERY

I continue to strongly support the D.C. Booth Fish Hatchery in Spearfish, South Dakota, and appreciate the support this Subcommittee has given to the facility in the past. The past support of this subcommittee has allowed the hatchery to be completely rehabilitated over the last three years. Included in the $3.9 million rehabilitation was construction of a public use and education center which includes a handicapped access fish viewing and study area. Also included was the construction of a one-of-a-kind 10,000 square foot National Historic Fishery Records and Archive Center. The Center will be used by historians, educators, students and researchers from throughout the U.S. and the world, and is truly a unique and innovative facility. The D.C. Booth site is located in a major tourist area on the Yellowstone route visited by 150,000 persons annually, with public use increasing by 20% annually. With the rehabilitation effort nearly completed, the D.C. Booth Fish Hatchery urgently needs $300,000 of start-up operations funding to put the facility on line. Without this funding, essential functions of operation will not be possible. I strongly support this funding request and am hopeful that this Subcommittee will continue in its support of the D.C. Booth Historic Fish Hatchery by approving these critically important start-up funds.

FOREST SERVICE

Mr. Chairman, because of the lack of funds for research facility construction in the Forest Service's budget, I need to request $1.9 million for the construction of a new facility for the Forest Service Research Station in Rapid City. It is my understanding that this project is the top priority within the Forest Service for research construction but has not been funded because of lack of funds.

As you know, the Forest Service has a long history of research in the Rocky Mountains and the Great Plains, with ecological research in the northern Great Plains at the Denbirgh Experimental Forest in North Dakota initiated in 1931, and the Black Hills Experimental Forest initiated in 1961. As you are well aware, the research done at these stations is essential to planning for integrated resource management. The research operation in Rapid City has contributed invaluable research in the areas of range and wildlife research, wooded draw ecosystems, and the promotion of further understanding of the consequences of land management activities.

Unfortunately, the current physical facility for the Rapid City station, constructed in 1960, is rapidly deteriorating because of continual structural problems, including portions of the building that are sinking. Various small and large scale repairs are needed each year. The average annual maintenance cost is over $50,000 and repairs over the past five years are in excess of $250,000. Recent engineering inspections indicate that the structure will require an additional $500,000 in the next 2-3 years just to maintain a safe and structurally sound facility.

Compounding the need for a new building is the fact that the current facility is located on the campus of the South Dakota School of Mines and Technology. Forest Service Research officials have been informed by SD School of Mines oficials that the present research facility is not included in future expansion plans for the institution. It appears, therefore, that the Forest Service Research facility 's future on the school's campus will be short lived and consequently it is critical that an alternative facility be found to support the Forest Service Research activities in Rapid City.

The Black Hills National Forest Supervisor has expressed sincere interest in having research operations co-located with the Forest Service District Office in Rapid City to increase cooperation and reduce overhead for administrative and other easily shared services. Additionally, State and Private Forestry and Forest Health Management is already located with the research station to maximize technical contacts and technological transfer opportunities. It is my understanding that the $1.9 million request I am making would allow for the construction of a 10,400 square foot facility that would support the research activities and maximize shared services between the Research Station, Forest Health Management, and the Black Hills National Forest. I urge your support of this critically important construction and appreciate your consideration of my request.

Mr. Chairman, I would also like to ask that careful review be given to the language included in the Committee report accompanying the FY 1994 and FY 1995 appropriations bills relative to scaled sales versus tree measurement scales. Although I understand the reasoning behind the Committee's inclusion of the language requiring the use of tree measurement sales by all Forest Service personnel, I would encourage you to modify the language to give the Forest Service more flexibility to determine and utilize the measurement type that is most appropriate on each national forest. On the BHNF, for example, a forest which has experienced very few problems with theft, it might be appropriate for scaled sales to be used to avoid the higher cost of preparing and administering the tree measurement sales. It would also alleviate purchasers' risk which has been a problem because there have been significant volume underruns on timber sales on the BHNF for the last 3-5 years.

USGS

I am concerned about the proposals being discussed to eliminate or deeply cut USGS and I would urge you to adequately fund this invaluable agency. As you are well aware, the USGS provides essential, objective, and high-quality earth-science information that helps manage, develop, and protect our natural resources. This information is vital to our ability to make decisions concerning the wise use of our natural resources, the mitigation of natural hazards, and the stewardship of our environment. Investments in the USGS continue to pay enormous dividends, and the lessons of the rationale for supporting this critical agency are numerous.

The devastating floods that inundated the Midwest in 1993, for example, provide powerful reminders of the central role the USGS plays in responding to natural disasters. In the aftermath of the catastrophic flooding, the White House Interagency Floodplain Management Task Force directed Interior and other Federal departments to determine the immediate effects of flooding and longer-term implications for floodplain management. The State of South Dakota and other states in the upper Midwest continue to reap benefits from that outstanding work. In addition, the interagency team chose to do its work at EROS Data Center in South Dakota. The Center was a logical choice because of its extensive computer-based technological capabilities, multi-disciplinary staff, and unparalleled expertise in managing large amounts of geographically referenced data.

Located near Sioux Falls, EROS is a state-of-the-art facility that receives, processes and distributes data from Landsat satellites. The Center manages the National Satellite Land Remote Sensing Data Archive and participates in NASA's Mission to Planet Earth program. As a unique hub of high technology research, EROS is particularly important to South Dakota because it provides opportunities for scientists, educators, and students in our state and assures them a role in the rapidly changing area of supercomputing and on the information superhighway. The work that goes on at EROS is only one example of the type of invaluable, quality activities in which the USGS is involved, and I urge your support for adequate USGS funding to ensure that the scientists at EROS and all over the country can continue to do their job of providing information essential to the effective management of our natural resources.

PARK SERVICE

Finally, I would like to reiterate my concern for the inadequate budget for our National Park Service facilities. The deteriorating level of service and basic infrastructure in our National Park System is alarming. Our South Dakota National Park units, including Mt. Rushmore, the Badlands National Monument, Jewel Cave National Monument, and Wind Cave National Park, are of particular concern to me. Declining budgets and declining personnel levels threaten citizen access to these facilities. Maintaining these units to allow a continued quality experience for visitors is a high priority for me. I appreciate all that the Subcommittee has done in the past to help for National parks, and I look forward to your continued devotion to this important issue.

Thank you again for this opportunity to submit testimony on the critical Interior funding needs in South Dakota. I do not envy the tough budget decisions facing you, however I hope that my requests will be considered favorably. Thanks again for allowing me to bring these issues to your attention.

WEDNESDAY, MARCH 29, 1995.

QUINEBAUG AND SHETUCKET RIVERS VALLEY NATIONAL HERITAGE CORRIDOR

WITNESS

HON. SAM GEJDENSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. REGULA. Sam.

Mr. GEJDENSON. Mr. Chairman, I won't take a lot of time——

Mr. REGULA. Your full statement will be put in the record.

Mr. GEJDENSON. Thank you. I won't take a lot of time of the committee, I want to thank you for giving me this opportunity to come here.

And for those of us in the East who support a lot of what the National Park Service does in the rest of the country, oftentimes it's hard for our constituents of average means to recognize the benefit of these programs. And one of the things that I know the chairman has supported in the past is the concept of heritage corridors, and I just want to say that I can't take a lot of credit for this one, in that the people really did it. And if you ever got to see how it worked, they started an organization that pulled about 20-some disparate towns together in eastern Connecticut. It may be small, but the history's so old for the country that one town to another town is almost like a different country.

And the first time they got together on their heritage corridor weekend, where they wanted to do all these walks and things, they set up about 20 or 30 of them, and I felt like saying, "Listen, guys, you're just doing too many. You're going to spread yourself too thin. Each one will be empty of people and will be a disaster," but I bit my tongue because my theory is you've got to let people learn and you've got to let them lead, and if you're always second-guessing them, it isn't going to work.

Well, what happened? Every event was oversubscribed. And they do this every October now. We are the last stretch of green land really between Boston and New York. It's really working well. We passed the law—authorization last time. We don't need a lot of money, about a quarter of a million dollars, to help the Park Service focus some resources on the development of this. This is also, one, money that's matched by the State and local government. It's not just let's take Federal money and it's a good time and go home. They've got to match it. And it's also a finite period of time, that we're not asking for this forever.

We need the help in resources to establish it because a lot of these towns are 2,000 people. Some of them are—the biggest ones are 11,000, 12,000, 13,000 people. And unless we have that Federal assistance and guidance, it's really not going to come together.

The State's committed to it. The towns are committed to it, and we hope you give it every consideration. We know it's a tough budget, but I think it's a really good program. And it's something that people did on their own in a sense that they've really pushed and pulled it together. I know that our humble State—never mind about this area—can fit just in a tiny county in the West, but we still think it's pretty important and pretty spectacular.

Mr. REGULA. Let me say I understand exactly what you're saying. I have a heritage corridor proposed in our area, and it gets people really energized in the local communities.

Mr. GEJDENSON. And it protects quality of life. It protects property. It's all the things we want. We say we want family; we want people to care about their communities. Government can facilitate that.

I tell you, I went on a private vacation several years ago to the Lake District of England. What we've always done is, if we wanted to make a national park, we chased the farmer off the land. We then paid a ranger to do what the farmer was doing for a profit, at a loss. What the British have done in an area where 35,000 or 40,000 people live and have, I think, over 200,000 tourists a year is they kept the farmers on the land. They kept the shopkeepers in place. They gave them some guidance and assistance to preserve their heritage, and they've got great tourism and a wonderful center without chasing the people off the land. I think that's what heritage corridors can do. You can help in a contractual relationship protect the resources and not chase the people off their own land.

Mr. REGULA. Thank you.

Mr. Skeen.

Mr. SKEEN. Thank you, sir.

No, I have nothing. We'll trade you some metropolitan areas. [Laughter.]

Your 200 or 300 population—we'll get you 12,000 or 13,000.

Good, Sam, good presentation.

Mr. GEJDENSON. Thank you, Mr. Chairman.

Mr. SKEEN. Thank you, Mr. Chairman.

[The statement of Mr. Gejdenson follows:]

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AND OCEANS
SUBCOMMITTEE ON
WATER AND POWER RESOURCES

COMMITTEE ON
HOUSE OVERSIGHT

Statement of Representative
Sam Gejdenson
before the Subcommittee on
Interior and Related Agencies

Chairman Regula, Ranking Member Yates and members of the Subcommittee, I appreciate the opportunity to testify today in support of funding for the Quinebaug and Shetucket Rivers Valley National Heritage Corridor. I want to express my sincere appreciation for your assistance in the past. I would also like to acknowledge the efforts of the Chairman to pass important Heritage Area legislation in the last Congress.

As you know, Public Law 103-449 established the Quinebaug and Shetucket Rivers Valley National Heritage Corridor in eastern Connecticut. The passage of this measure marks the culmination of more than 5 years of hard work by local elected officials, business people, conservationists, tourism officials, residents and others to establish a Heritage Corridor in this area. The law authorizes $250,000 in fiscal year 1996 for the Secretary of Interior to assist the State of Connecticut, local communities, non-profit groups, residents and others in developing and implementing a management plan for the area. I am here today to request the Subcommittee's support for this appropriation in FY 1996.

The Heritage Corridor concept is ideally-suited for this part of Connecticut. This 25-town area has many nationally significant resources, including massive textile mills which chronicle the development of industry in the United States from the early 1700's though modern times. The Corridor area also contains what many believe to be the last remaining large tracts of open land between New York and Boston. We have significant natural resources, including state forests, parks and some of the cleanest rivers in my state. Furthermore, the area has more than 100 properties listed on the National Register of Historic Places, including the birthplace of Samuel Huntington, who signed the declaration of Independence and the Constitution, and the famous Bowen House, which was the site of many large Fourth of July parties attended by several Presidents.

Elected officials and residents of these communities want to protect these resources and develop the tourism industry in this economically depressed part of my state. However, they lack some of the technical expertise required to pull everything together. While the state can help in certain ways, it can not provide the

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same level of assistance that the Department of Interior, especially the National Park Service, can supply. The Service has personnel which specialize in planning, historic preservation, natural resource protection and recreational development already in place at the Regional level.

While the Service has staff with expertise in these important areas, it does not have the resources necessary to carry out the goals of this law without separate funding for this specific purpose. As the Subcommittee is well aware, the Department's resources are currently stretched to the limit and will not support activities which go beyond the most general forms of technical assistance. Public Law 103-449 authorizes the Secretary, among other things, to assist in preserving nationally significant structures, in developing interpretive exhibits and in identifying recreational opportunities. In order to accomplish these tasks, I believe it is essential to provide the Secretary with additional resources. It is important to note that the law requires the local entities to make a substantial financial commitment to the Corridor as it limits federal assistance to no more than 50% of the costs annually. Local entities will be responsible for their fair share of the costs associated with developing the Corridor.

I firmly believe the Department has a role to play in safeguarding these important resources which showcase our history over the last three centuries. State and local entities and residents have been working hard on this project for many years but need certain assistance that only the federal government can provide. In addition, unlike some previous Heritage Corridors established by Congress, my legislation does not create a commission to oversee the development and implementation of a management plan. As a result, this important task will largely fall on a volunteer organization of local residents, which I believe makes assistance from the Secretary even more essential. I believe that a partnership between the various levels of government and citizens makes sense for all involved.

Once again, I appreciate the opportunity to testify today. I look forward to working with you in the coming months.

WEDNESDAY, MARCH 29, 1995.

HASKELL INDIAN NATIONS UNIVERSITY

WITNESS

HON. JAN MEYERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KANSAS

Mr. REGULA. Jan, we'll put your full statement in the record. If you'll summarize, we'll appreciate it.

Mrs. MEYERS of Kansas. I think I can be very brief because you're so familiar with the topic. You are aware of Haskell Indian Nations University. There are 796 students, representing 155 tribes throughout 35 States. So they come to Lawrence, Kansas from all over the United States.

It has been a two-year school up until recently, and now they have added a baccalaureate program for teachers, with an emphasis on environmental science. These young people will study and go back to the reservation and will be able to help with the environmental challenges their tribes encounter. They will take their expertise back, so they can teach the young people.

In Fiscal Year 1995, Haskell received $7.9 million. That was up from $7.3 million in Fiscal Year 1994. OMB has just flatlined the budget for the past 10 years. This year they did suggest an increase for Haskell. So they have proposed, in addition to Haskell's baseline budget, an increase of $209,000. Haskell appreciates the support of the administration in this. However, it's important to note that, had their budget been adjusted for inflation, the Fiscal Year 1995 appropriation would have been $10.5 million. So that flatlining of their budget has taken a lot of money, and it's taken a lot of planning to do without that.

I also want to highlight Haskell's cooperative efforts in science research and training, with Kansas State University, with NASA, Sandia Labs, and the National Science Foundation. It's really an outstanding school, and the only problem that they really have is that the buildings are very old. They are over 100 years old, and they have some really serious health and safety deficiencies.

Now in the past we have appropriated money for that. The Bureau of Indian Affairs—it's the Facilities Management and Construction Center—has set that money aside, and then there have been these incredible inexplicable delays. If there's anything that you can help me keep the Bureau of Indian Affairs to their building and maintenance schedule, I would appreciate it. This is a commitment that they have already made. The money is there, and they have delayed three and four years on vital health and safety upgrade projects.

Mr. REGULA. Thank you. We'll check it out.

Mrs. MEYERS of Kansas. I think the school is going well, has some exciting things in front of it, and I would appreciate any consideration you give.

Mr. REGULA. Mr. Skeen.

Mr. SKEEN. Thank you, Mr. Chairman.

Jan, as I said to Tim Johnson, those of us who represent Native American groups, large groups of them, the same thread and the same problems run through every one of the testimonies that you heard. Buildings are falling down. They're doing more in education. Self-determination is becoming a real possibility because we've got generations now, two or three generations, of young people going back to reservations and taking on the responsibility of self-governance. But then, all in all, it's still a backwater situation as far the funding is concerned. And I certainly have the same problems you do, particularly with the Indian Health Service and with the educational community. I'd like for some of us to get together here in the near future and just sit down and see what the commonality is and see if we can't work out something that——

Mrs. MEYERS of Kansas. I would appreciate that. The Kansas delegation is writing a letter to the Bureau of Indian Affairs, both with all House and Senate people involved, and we're going to try to follow through on this. And if you will give us some assistance, I'm sure that——

Mr. SKEEN. Thank you, Mr. Chairman.

Mr. REGULA. Thank you.

Mrs. MEYERS of Kansas. Thank you very much. I appreciate it.

[The statement of Mrs. Meyers follows:]

Statement of the

Honorable Jan Meyers
before the
Appropriations Subcommittee on Interior
on
March 29, 1995

Thank you, Chairman Regula and Members of the Appropriations Interior Subcommittee, for allowing me to testify before you on behalf of Haskell Indian Nations University. Exciting growth continues as Haskell moves into its junior year of its new education baccalaureate program. Recently, the Kansas State Board of Education evaluated the program and found that out of 101 state standards, Haskell's baccalaureate program failed to meet only eight, all of which related to secure and adequate funding for the program.

In fiscal year 1995, Haskell received $7.5 million, up from $7.3 in fiscal year 1994. Haskell has 796 students, representing 155 tribes and 35 states. For the first time in over ten years, the Office of Management and Budget has proposed an addition to Haskell's baseline budget of $209,000. While Haskell appreciates the support of the Administration, it is important to note that had their budget been adjusted for inflation the fiscal year 1995 appropriation would have been $10.5 million.

Nonetheless, Haskell continues to pursue innovative research programs. Haskell has also entered into a cooperative research and training program with Kansas State University, creating the Haskell Environmental Research Studies Center (HERS). HERS involves faculty from Haskell in long-term and short-term research relating to key hazardous substance problems on American Indian lands, and disseminating information through training and outreach programs. Haskell has also entered into cooperative relationships with NASA, Sandia labs and National Science Foundation, as well as other major universities and tribal colleges to strengthen the science curriculum. Haskell University would like to build on the success of these programs and expand the baccalaureate program to incorporate an emphasis on science and environmental studies.

I would also like to mention to the Members of the Appropriations Committee an ongoing concern about building projects and safety code upgrades that have been left uncompleted by the Facilities Management and Construction Center (FMCC). Three projects to correct ongoing safety deficiencies campus-wide have been delayed for nearly four years. A new dorm to house an additional 300 students has been delayed nearly three years. Space is at a premium since over 2,000 students applied for admission in 1994. I bring this situation to the Committee's attention since these long unacceptable delays endanger Haskell's ability to support their new baccalaureate program with adequate infrastructure.

WEDNESDAY, MARCH 29, 1995.

APPALACHIAN TRIAL

FOREST LEGACY PROGRAM

HISTORIC PRESERVATION FUND

WITNESS

HON. BERNARD SANDERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VERMONT

Mr. REGULA. Mr. Sanders, we don't have you on the schedule,—I don't want to hold you up, but if you'd like to submit your statement for the record and make a couple of comments, we'll be pleased to hear from you.

Mr. SANDERS. I believe we did make a request and we were told we should be here at 10:40, but let me—it's not on the——

Mr. REGULA. Well, it didn't get on the list, but you're here; so why don't you go forward. Mrs. Morella is not here, who's scheduled for this time. So we'll go ahead with you.

Mr. SKEEN. We want to listen to you anyway.

Mr. REGULA. Your full statement will be put in the record.

Mr. SANDERS. I'll be very brief with the statement. Mr. Chairman, thanks for the opportunity of allowing me to testify.

I'm testified in support of the President's request for $6.4 million for the National Park Service Appalachian Trail Program and $2 million for the Forest Service Appalachian Trail Program, a total of $8.4 million in funding the Appalachian National Scenic Trail. The Trail which extends from Maine to Georgia through some of the most scenic areas in the State of Vermont has only 44 miles of unprotected trail. With these funds, an estimated 80 to 100 acres will be added, and we are likely to reach our goal of a publicly-owned corridor extending the entire trail by Fiscal Year 1998.

The Appalachian Trail was the Nation's first national scenic trail and is a haven for hikers throughout the East Coast. The trail is used by approximately 3 or 4 million visitors a year, very, very popular. It also was home for the first group of rare and endangered animals and plants. I urge you to fully fund these programs at the levels requested by the President.

Mr. Chairman, I would also like to say that I strongly support funding for the Forest Legacy Program, a prime example of a successful Government/private partnership. It has already allowed the conservation of important forest lands of Vermont, such as the ridge crest of the Worcester Mountains and the beautiful Cow Mountain Pond area. A major success of this program has been the Big Jay track, a 5,400-acre property adjacent to Jay State Forest which includes parts of the Long Trail and the Catamount Trail, as well as the highest privately-owned, undeveloped mountain peak in Vermont. The State of Vermont and Vermont conservation groups developed an innovative plan to protect Big Jay, which would use a combination of easements and purchases requiring only $800,000 in legacy funds.

I would also like to mention my pleasure in discovering that the President has requested a minor increase in funding for the Historic Preservation Fund. There are villages and sites up to three centuries old in nearly every town in the State of Vermont. This fund will help combine public and private initiatives to preserve these important and beautiful reminders of our roots.

Mr. REGULA. Thank you.

Mr. Skeen.

Mr. SKEEN. No questions.

Mr. SANDERS. Any help you can give us we'd appreciate. Thanks very much.

[The statement of Mr. Sanders follows:]

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March 29, 1995 Statement of Bernard Sanders (I-Vt)
Interior Appropriations Bill

Appalachian Trail

Mr. Chairman, I am testifying in support of the President's request for $6.4 million for the National Park Service Appalachian Trail program and $2 million for the Forest Service Appalachian Trail program - a total of $8.4 million in funding for the Appalachian National Scenic Trail. The Trail, which extends from Maine to Georgia through some of the most scenic areas in my state of Vermont, has only 44 miles of unprotected trail. With these funds an estimated 8200 acres will be added and we are likely to reach our goal of a publicly owned corridor extending the entire Trail by FY98.

The Appalachian Trail was the nation's first national scenic trail and is a haven for hikers throughout the East Coast. The trail is used by approximately 3 to 4 million visitors a year. It also is home to a diverse group of rare and endangered animals and plants. I urge you to fully fund these programs at the levels requested by the President.

Forest Legacy Program

Mr. Chairman, I would also like to say that I strongly support funding for the Forest Legacy Program - a prime example of a successful government-private partnership. It has already allowed the conservation of important forest lands in Vermont,

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such as the ridge crest of the Worcester Mountains and the beautiful cow Mountain Pond area. A major success of this program has been the Big Jay tract, a 5400 acre property adjacent to Jay State Forest which includes parts of the Long Trail and the Catamount Trail as well as the highest privately-owned, undeveloped mountain peak in Vermont. The state of Vermont and Vermont conservation groups developed an innovative plan to protect big Jay, which would use a combination of easements and purchases requiring only $800,000 in Legacy funds.

Historic Preservation Fund

I would also like to mention my pleasure in discovering that the President has requested a minor increase in funding for the Historic Preservation Fund. There are villages and sites up to three centuries old in nearly every town in my state of Vermont. This fund will help combine public and private initiatives to preserve these important and beautiful reminders of our roots. At a time when we are considering legislation that protects private property rights at the expense of the environment, I am glad we are considering increased funding for this fund that protects property that does not compromise the surrounding environment.

Mr. Chairman, I urge your support on all three of these important items in the appropriations bill. Thank you for your consideration of my views.

WEDNESDAY, MARCH 29, 1995.

PITTSBURGH ENERGY TECHNOLOGY CENTER

WITNESS

HON. MIKE DOYLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. REGULA. Mr. Doyle.

Mr. DOYLE. Do you have a copy of my written testimony?

Mr. REGULA. Yes, your complete written testimony will be made a part of the record and we'd appreciate it if you can summarize because we're on a tight schedule, as you know.

Mr. DOYLE. Thank you, Mr. Chairman. I want to thank you and the members of the subcommittee for the opportunity to come here today to testify about PETC, the Pittsburgh Energy Technology Center, and the Bruceton research facility.

In my prepared testimony I've gone into some detail about how PETC contributes to our Nation's long-term energy goals. PETC is one of the few facilities in the Nation that features a completely integrated capacity for implementing and managing Federal science programs. It has lead responsibility for several technology-based components of the fossil energy coal program. This work is of paramount importance for DOE in meeting today's—America's long-term energy needs. You know, today U.S. coal production is at an all-time high, and DOE's own projections indicate greatly expanded coal use.

Certainly, downsizing DOE is in order, but there are numerous cuts in other areas that should rate a much higher priority. In fact, I believe that through DOE restructuring significant savings can be realized through the centralization of some functions at PETC, and I'm willing to discuss them further with the members of the subcommittee at their convenience.

I'm concerned about the funding levels in the DOE fossil energy budget and the process by which these decisions were made. It's interesting to note that the administration's request represents a 26 percent drop in coal R&D while the gas R&D receives a 25 percent increase. This is especially interesting when taking into account that the gas industry has a publicly-supported R&D program run by the ratepayer-funded Gas Research Institute.

Also, much under the DOE energy and efficiency R&D program is directed at natural gas utilization, and that is a program that has increased by $132 million. My concern is that much of what is considered to be gas R&D focuses on supporting demonstration projects for improving existing products that utilize natural gas rather than developing technologies which enhance its resource base. This is not to say that there are not areas in gas R&D that deserve funding. There are several, such as solid oxide fuel cells which hold great economic potential. It just appears that gas R&D is being increased at the expense of coal R&D. What is disturbing is that, as far as I can tell, DOE has no objective method for setting these kind of priorities. As we seek to shape the DOE of the future using such studies as the Galvin Report, there are no analytical techniques in place to provide an empirical basis for decisionmaking within the Department of Energy.

I recommend that the committee consider the possibility of consolidating management of the Nation's coal program and PETC in the process of developing a National Coal Center. This would allow for a more focused and efficient coal R&D program. Regarding the R&D programs implemented by PETC, I urge this subcommittee to restore funding to a select group of activities that are clearly in the national interest, which is detailed in my written testimony.

Finally, let me briefly focus on the Bureau of Mines. As you know, there has been significant consideration of the elimination of the Bureau of Mines. I understand that the Natural Resources Committee, among others, is considering alternative proposals for implementing key programs that are now under the Bureau of Mines. The Pittsburgh site of the Bureau of Mines is fully prepared to take on those key functions that support health and safety and meet the legitimate needs of mining and mineral industries.

This subcommittee has long demonstrated an understanding of the importance of fossil fuel research to meeting our long-term energy needs. I believe this view is supported by a majority of the members, as was demonstrated by the resounding defeat of the Rohrabacher amendment to the rescissions bill to cut a single clean coal program. PETC is clearly a linchpin in our overall fossil fuel research development and demonstration efforts.

I urge the members of the subcommittee to consider some of the suggestions that I've made here today in my written testimony. Thank you for your time, Mr. Chairman.

Mr. REGULA. Thank you.

Mr. Skeen.

Mr. SKEEN. I have no questions.

Mr. DOYLE. Thank you very much.

[The statement of Mr. Doyle follows:]

Testimony of Representative Mike Doyle [PA-18] before the Interior Appropriations Subcommittee
March 29, 1995

I want to thank Chairman Regula, Ranking Member Yates and the rest of the Subcommittee for the opportunity to come here today to testify about PETC- the Pittsburgh Energy Technology Center and the Bruceton Research facility.

PETC is one of the few facilities in the nation that features a completely integrated capability for implementing and managing Federal science and technology programs. It brings together the combined capabilities of a DOE National Laboratory through its in-house research group and of a DOE Field Operations Office through its administrative and program implementation capabilities. More so than any other R&D facility, PETC serves America's basic and applied research, tech transfer and oversight needs efficiently and cost-effectively. I am confident that this expertise and these facilities can continue to play a constructive role in a "Reinvented Government".

I believe that the type of work being done at PETC is in keeping with the guidelines for Federal R&D funding which were outlined in a letter I received earlier this week from Paul Allaire, Chairman of the Council on Competitiveness which states, "[we] must continue to give priority to programs that encourage government, industry and academia to work together on research that is of direct relevance to the economy and that emphasizes the achievement of strategic objectives."

PETC's integrated in-house research and cooperative agreements with the private sector and academic institutions have been extremely successful in meeting identified needs that market forces have been unable to address. I have received, as I believe the Subcommittee has, numerous letters from industry and academia that have been sent to Assistant Secretary Pat Godley of DOE's Fossil Energy division. These letters underscore the past successes and ongoing need for the programs at PETC.

Recent examinations of the Department of Energy, most notably the Galvin Report, have underscored the need for DOE's research to be more responsive to the needs of industry. In particular, there is a need for improved tech transfer activities which center around the work of the national labs.

However, as a member of the Science Committee, I have heard testimony from lab directors who say that they want to keep the focus of the labs exclusively on basic research. If this is to be the case, then a reevaluation of the staffing of the labs must be undertaken, which I know is an effort that is being pursued by some Members of the authorizing Committee.

It also means that there is a large component of precompetitive research which the labs are either unable or unwilling to provide. It is this type of activity that PETC has been successfully engaged in for a number of years. PETC's work is quite a bargain when compared to the billions of dollars that are spent annually on our National Labs.

Certainly, downsizing of the Department of Energy is in order, but in doing so, we must keep in mind overall national needs. In fact, I believe that through DOE restructuring, significant savings can be realized through the centralization of some key functions at PETC and I am willing to discuss them further with the members of the Subcommittee at their convenience.

PETC has lead responsibility for several technology-based components of the Fossil Energy Coal Program. The U.S. relies on coal for 23% of its total energy consumption and more than 56% of its electricity. It is estimated by DOE that economic growth alone will lead to a 24% increase in coal consumption by the year 2010, mostly for electric power generation.

Thus, I am concerned about funding levels in the DOE fossil energy budget and the process by which these decisions were made. It is interesting to note that the Administration's request represents a 26% drop in coal R&D while the gas R&D receives a 25% increase [See Figure 1].

This is especially interesting when taking into account that the gas industry has a publicly supported R&D program run by the ratepayer-funded Gas Research Institute. Also, much of what is under the DOE Energy Efficiency R&D Program is directed at natural gas utilization and that is a program that has increased by $132 million. My concern is that much of what is considered to be gas R&D focuses on supporting demonstration projects for improving existing products for using natural gas, rather than developing the technologies which enhance its resource base.

That is not to say that there are not areas in gas R&D that deserve funding - there are several, such as solid oxide fuel cells, which hold great economic potential. It just appears that gas R&D is being increased at the expense of coal R&D. What is disturbing is that, as far as I can tell, DOE has no objective method for setting these kind of priorities. As we seek to shape the DOE of the future using such studies as the Galvin Report, there are no analytical techniques in place to provide an empirical basis for decision-making within the Department of Energy.

I recommend that the Committee consider the possibility of consolidating management of the nation's coal program at PETC, in the process of developing a National Coal Center. This would allow for a more focused and efficient Coal R&D Program. Also, I understand that the Natural Resources Committee, among others, is considering alternative proposals for implementing key programs that are now under the Bureau of Mines. The Pittsburgh site of the Bureau of Mines is fully prepared to take on those key functions that support health and safety, and meet the legitimate needs of the mining and minerals industries.

Regarding the R&D programs implemented by PETC, I urge this Subcommittee to restore funding to a select group of activities that are clearly in the national interest. My highest priority is an increase of $10 million for R&D in Advanced Clean/Efficient Power Systems. This would allow full funding of the Low Emissions Boiler Program and associated supporting research, development and testing activities. Right now, this program is centered on three competing teams, each of which is lead by a major U.S. manufacturer of boiler systems: Combustion Engineering, Riley Stoker Corporation, and Babcock & Wilcox.

Successful completion of this cost-shared program will assure that U.S. companies and U.S. workers continue to build world-class power generation systems that out-perform the efforts of our global competitors. Of equal importance is that this program will lead to the development of cleaner, more efficient technology for use in the U.S. and abroad. Without this increase in funding, DOE will be forced to prematurely down-select to a single team. Trying to locate savings here makes little sense either technically, environmentally, or when considering the international competition for coal-fired electric power generation systems.

Second, I urge the Subcommittee to restore $10 million to the budget for Advanced Clean Fuels Research. American coal is a secure resource with hundreds of years of proven reserves.The development of advanced methods of coal preparation is needed to support the sound and efficient use of our coal resources. As a nation, we have made substantial investments in coal liquefaction technology. While current conditions warrant lower investment in coal liquefaction research, the proposed cut does not allow for an orderly downsizing. Our investment to date has yielded a strong technology base which would be lost by sudden and drastic reductions in its funding.

Also, I would encourage the restoration of some of the funding cut from the Advanced Research & Technology Development Program. This is the portion of the coal R&D program that supports high-risk, high-payoff concepts which are generally located at universities throughout the country. This is cutting edge work which supports training future generations of engineers and scientists. I believe that it would be foolish to mortgage our intellectual future for a minimal savings today.

Finally, I must emphasize that almost all of the restored funding will go to support projects that are spread throughout the country and are not in my Congressional District.

This Subcommittee has long demonstrated an understanding of the importance of fossil fuel research to meeting our long-term energy needs. I believe that this view is supported by a majority of members, as was demonstrated by the resounding defeat of the Rohrbacher amendment to the rescissions bill to cut a single clean coal program. PETC is clearly a linchpin in our overall fossil fuel research, development and demonstration efforts. I urge the members of the Subcommittee to consider some of the suggested funding levels I have submitted for your review.

FIGURE 1

Budget Authority in Millions

Natural Gas Research and Development	FY 1995 Appropriations	FY 1996 Request
Fuel Cells	$49.58	$55.46
Natural Gas Research		
- Resource and Extraction	$20.70	$33.00
- Delivery and Storage	1.07	3.07
- Advanced Turbine Systems	37.67	43.97
- Utilization	4.26	4.93
- Environmental Research/ Regulatory Impact Analysis	2.99	5.41
Total Gas R&D	$116.27	$145.84

Budget Authority in Millions

Coal Research and Development	FY 1995 Appropriations	FY 1996 Request
Advanced Clean/Efficient Power Systems	$90.51	$73.4
Advanced Clean Fuels Research	$38.52	$16.57
Advanced Research and Technology Development	$25.36	$24.92
Total Coal R&D	$154.39	$114.88

FIGURE 2

Suggested Additions for PETC Coal Programs

Advanced Clean/Efficient Power Systems	
● Low Emissions Boiler Systems	$8,000K
● Advanced Research and Environmental Technology	$2,000K
Subtotal	$10,000K
Advanced Clean Fuels Research	
● Coal Preparation	$1,500K
● Direct Liquefaction	$2,000K
● Indirect Liquefaction	$4,000K
● Advanced Research & Environmental Technology	$2,500K
Subtotal	$10,000K
Advanced Research and Technology Development	$3,000K
Grand Total	$23,000K

WEDNESDAY, MARCH 29, 1995.

LAND ACQUISITION NEEDS AND NATIVE AMERICAN ECONOMIC DEVELOPMENT

WITNESS

HON. ED PASTOR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. REGULA. Mr. Pastor.

Mr. PASTOR. Thank you, Mr. Chairman. Good morning.

Mr. REGULA. Your full statement will be made a part of the record.

Mr. PASTOR. Thank you. I appreciate it. Thank you for allowing me to appear before you today. I will make it brief and ask unanimous consent that my complete statement be made a part of the hearing record.

As you know, the subcommittee has been very supportive of funding for the expansion of Saguaro National Monument, a monument which Congress recently elevated to a National Park. Presently, it is endangered by the rapid development in the greater Tucson area. Due to your efforts and the support of the subcommittee, the beautiful and unique desert lands have been saved from destruction and intrusion. I know I speak for the people of Arizona in expressing my appreciation of this subcommittee's work on behalf of the park.

Mr. Chairman, I'm requesting that the subcommittee support the President's budget request of $6 million for the National Park Service for the expansion of the eastern unit of the Saguaro National Park. As you know, the acquisition of the Rocking K Ranch lands is nearly complete, and the pending land transfer agreement, which has been in progress for nearly ten years—excuse me, three years—is hoped to secure nearly all the remaining property. Should the land transfer be completed, the $6 million in the administration's budget will provide for the acquisition of the Rocking K Ranch land not acquired through the transfer, as well as nearly all of the X9 Ranch, thus completing expansion efforts for the eastern unit. Procurement of the X9 Ranch will provide essential access to the southern portion of the park and enable riparian zones and wildlife corridors to remain undisturbed by development. Additionally, the X9 Ranch contains over 1,000 acres of truly exceptional Sonoran desert habitat that will be subject to development and closed to public if the lands are not incorporated into the park. Failing a successful land transfer agreement, the $6 million will be used to acquire the remainder of the Rocking K Ranch, which includes property that provides critical access to the park, as well as leaving $1.5 million for acquisition of the X9 Ranch properties.

Mr. Chairman, I also request that the subcommittee support the administration's budget request of $1 million for the Bureau of Land Management to acquire 225 acres of the private holdings within the San Pedro Riparian National Conservation Area, and $748,000 for the BLM acquisition of 4,000 acres in the Arizona wilderness area. Mr. Chairman, these preserves are home to some of Arizona's most important biological resources. In particular, the San Pedro Riparian National Conservation Area contains over 230 species of birds, including some that are candidates for listing under the Endangered Species Act. To date, acquisition efforts have protected and enhanced the San Pedro River to the point where it is now recognized as the highest quality desert riparian system remaining in the Southwest. The addition of the lands will help to not only preserve these areas, but will enhance the scenic and ecological value, and I ask that the subcommittee support these requests.

I have further requests in my complete statement, Mr. Chairman, relating to various economic development and agricultural projects on Indian reservations, as well as support for a number of different programs within the Department of Interior. I know that you'll have a hard, difficult time——

Mr. REGULA. Yes.

Mr. PASTOR [continuing]. Reporting this year, and I thank you for this opportunity to present these important requests to the subcommittee.

Mr. REGULA. Thank you.

Mr. PASTOR. If you have any questions, I'll be happy to answer them.

Mr. REGULA. Mr. Skeen?

Mr. PASTOR. And, again, I extend to the subcommittee an invitation to come see the majestic Saguaro National Park in Tucson.

Mr. REGULA. I have visited those.

Mr. PASTOR. Thank you, Mr. Chairman.

Mr. REGULA. I've been to Organ Pipe also.

Mr. PASTOR. Good. That's all in my district. I have a lot of Saguaros there.

Have a good day. Thank you.

Mr. REGULA. Thank you.

Mr. SKEEN. Thank you, Ed.

[The statement of Mr. Pastor follows:]

STATEMENT OF THE HONORABLE ED PASTOR
ARIZONA - SECOND DISTRICT
before the
SUBCOMMITTEE ON INTERIOR
Committee on Appropriations

March 29, 1995

Mr. Chairman, I would like to thank you for allowing me to appear before your Subcommittee today to speak on behalf of a number of important requests to my State of Arizona and its people.

Saguaro National Park
Mr. Chairman, I am requesting that the Subcommittee support the President's budget request of $6 million for the National Park Service for the expansion of the Eastern Unit of the Saguaro National Park, located outside of Tucson, Arizona.

As you may know, the acquisition of the Rocking K Ranch lands is nearly complete, and a pending land transfer agreement, which has been in progress for nearly three years, is hoped to secure nearly all the remaining property. Should the land transfer be completed, the $6 million in the Administration's budget will provide for the acquisition of Rocking K Ranch land not acquired through the transfer, as well as nearly all of the X9 Ranch, thus completing expansion efforts for the Eastern Unit. Procurement of the X9 Ranch will provide essential access to the southern portion of the Park and enable riparian zones and wildlife corridors to remain undisturbed by development. Additionally, the X9 Ranch contains over 1000 acres of truly exceptional Sonoran desert habitat that would be subject to development and closed to public use if the lands are not incorporated into the Park.

Failing a successful land transfer agreement, the $6 million will be used to acquire the remainder of the Rocking K Ranch, which includes property that provides critical access to the Park, as well a leaving $1.5 million for acquisition of X9 Ranch properties.

Mr. Chairman, the Saguaro National Park is truly one of the crown jewels of the Sonoran Desert and the National Park Service. Congress recognized the uniqueness of the these lands and upgraded the Saguaro National Monument to a National Park last year. The Subcommittee has done the nation a tremendous service through its efforts on behalf of this project in previous years. I respectfully ask that you continue with this fine work and support the Administration's request for $6 million for the continued expansion of the Park.

Tohono O'odham Nation
I am requesting $530,000 for higher education services and an increase of $540,000 from the Administration's request for law enforcement for Tohono O'odham Nation, located in Sells, Arizona.

The Nation, which is located on the second largest Indian Reservation in the U.S., suffers from severe unemployment. Since 1983, when higher education services were contracted by the Nation, the number of grant applicants and general workload has substantially increased.

The requested funds would enable the Nation to hire counselors to provide academic, vocational, and guidance counseling for students, as well as desperately needed full-time administrative support.

The Tohono O'odham Nation shares its entire 75 mile southern boundary with Mexico. This border is often used as a an illegal entry point into the United States from Mexico, creating severe law enforcement problems which are often given a violent dimension by cross-border drug trafficking. The Federal government has provided little, if any, assistance in these matters, and the Nation does not have the resources to provide adequate law enforcement for the border.

The Bureau of Indian Affairs has recognized this problem and included $520,000 in its budget request for the Nation's Ranger Proposal. The additional money requested will fully fund this initiative.

Quechan Indian Tribe Irrigation Rehabilitation and Betterment Project
I am requesting $1.5 million for the Quechan Indian Tribe's Irrigation Rehabilitation and Betterment project. The project is located on the Fort Yuma Reservation in Yuma, Arizona.

During 1983, the Fort Yuma Quechan Reservation land and irrigation system was severely damaged by rains and the forced released of flood water from Federal dams upstream on the Colorado River. The federal government accepted responsibility for the damage, authorized disaster aid, and commissioned a report to evaluate the extent of the damage.

In 1986, the damage assessment was completed and recommended major restructuring of the irrigation system if all previously irrigable land was to be returned to production. Appropriations for the project began in FY 1990, in the amount of $1.28 million. In FY 1991, $995,000 was appropriated. Funds were not appropriated in FY 1992, but $750,000 was made available in FY 1993. In FY 1995, $798,472 were appropriated for the construction of underground pipelines and the concrete lining of open ditches. The $1.5 million requested will allow the Tribe to continue its rehabilitation work and construct 12,000 feet of underground pipeline and concrete line 5300 feet of earthen ditches.

Mr. Chairman, completion of this project is absolutely essential for the economic growth and development of the Quechan Tribe and the Fort Yuma Reservation, in particular. Your assistance in this most important project would be greatly appreciated by the Tribe.

Gila River Farms
Mr. Chairman, I am also requesting that the Subcommittee support the Administration's budget request of $428,000 for the Bureau of Indian Affairs for crop establishment on the Gila River Farms, located in Sacaton, Arizona.

Currently, the crop establishment program cannot yet support itself and the funds will be used to maintain the existing 1,260 acres of citrus and olives. I am happy to report, Mr. Chairman, that Fiscal Year 1997 is the last year in which the Farms will require financial assistance for their crop establishment program. Funding is needed at this time to protect the significant investments that have been made over the past seven years. Upon the maturity of the orchards, a workforce of over 750 persons will be required for cultivation and harvesting of the citrus and olives.

The Farms are a successful enterprise and produce a variety of high quality crops that are exported to several domestic and foreign markets. This additional money will help to ensure that the Farms continues its fine work and engages even more members of the Gila River Indian Community in its farming operations.

Support of Budget Requests for Various Land Acquisitions

I am requesting that the Subcommittee support the President's budget requests of $1 million for the Bureau of Land Management (BLM) to acquire 225 acres of private inholdings within the San Pedro Riparian National Conservation Area, and $748,000 for BLM acquisition of 4000 acres in the Arizona Wilderness Area.

Mr. Chairman, these preserves are home to some of Arizona's most stunning lands and important biological resources. In particular, the San Pedro Riparian National Conservation Area contains over 330 species of birds, including some that are candidates for listing under the Endangered Species Act. To date, acquisition efforts have protected and enhanced the San Pedro River to the point where it is now recognized as the highest quality, desert riparian system remaining in the Southwest.

The acquisition of the lands will help to not only preserve these areas, but enhance their scenic and ecological value, and I ask that the Subcommittee support these requests.

Mexican Wolf Recovery Program

Mr. Chairman, I am also requesting $38,000, in addition to the Administration's budget request of $499,000, for the Fish and Wildlife Service's Mexican Wolf Recovery Program.

As you may know, the Mexican wolf, which has been listed as an endangered species since 1976, is the rarest subspecies of the gray wolf in the world - only 88 are known to exist. The Fish and Wildlife Service began a recovery program in 1982 to inventory, evaluate and protect the remaining gene pool, as well as re-establish and maintain viable wild populations.

The majority of the work to be done in FY 1996 includes completion of a final Environmental Impact Statement for the proposed introduction, construction and operation of additional breeding and holding facilities, continuation of public information and education efforts, and pre-release research and ecological studies. The additional money requested reflects amounts that the U.S. Fish and Wildlife Service has reported are required to adequately implement the program in FY 1996.

National Biological Service's Cooperative Fish and Wildlife Research Units

Mr. Chairman, I am also supportive of the National Biological Service's Cooperative Research Units program. The Cooperative Research Units of the Bureau of Land Management, the Fish and Wildlife Service, and the National Park Service were, as you know, transferred to the National Biological Service. These programs have been directly responsible for many advancements in the scientific management of our nation's natural resources. The federal-state partnerships embodied in the Cooperative Research Units foster mutually beneficial relationships that enable federal and state resource managers and the academic community to learn from one another.

As a Representative from a State where 87% of the land is either held by Federal, State, or Tribal governments, the Cooperative Research Units are of particular importance to all those involved in resource management. I urge the Subcommittee to support this fine program.

U.S. Geological Survey's Water Resources Research Institute program.
I am also supportive of the testimony submitted by the National Institutes of Water Resources and the National Association of State Universities and land-Grant Colleges on behalf of the U.S. Geological Survey's (U.S.G.S.'s) Water resources Research Institutes program.

The 54 Water Research Institutes established under the provisions of the Water Resources Research Act link faculty and students with interests in water resources at institutions of higher education throughout the country. These faculty and students come from a variety of disciplines, and the Institutes are the only entities through which their work on water resources issues can be integrated.

As you know, the federal investment in the Institutes is augmented by State and local government, as well as private sources, to create a program that leverages the federal investment eleven times over. Last year, the 54 Institutes generated approximately $65 million to support their research, education, and information development activities.

Mr. Chairman, this program has demonstrated its success for three decades. The work being done by the Institutes, especially in the West, is more important than ever before, and I respectfully urge you to continue to funding this program at, or near, last year's level.

In addition, Mr. Chairman, I also urge the Subcommittee to approve the Administration's funding request for the U.S.G.S. The agency provides critical information on earth science information, natural hazards, the environment, and mineral and energy resources. As the primary federal agency responsible for the collection of water quality and water quantity data, it plays a vital role in the West. Its technical expertise and objective information and analysis are crucial to a vast array of water resource planning operations in Arizona and other States where water conservation is a way of life.

Thank you, Mr. chairman, for allowing me to appear before the Subcommittee today on behalf of my constituents in the State of Arizona. I know you have a difficult task before you, and I appreciate your consideration of these important programs and projects.

WEDNESDAY, MARCH 29, 1995.

OFFICE OF TERRITORIES AND INSULAR AFFAIRS, AMERICAN SAMOA, AND BUREAU OF INDIAN AFFAIRS

WITNESS

HON. ENI F.H. FALEOMAVAEGA, A REPRESENTATIVE IN CONGRESS FROM AMERICAN SAMOA

Mr. REGULA. The gentleman from American Samoa.

Your full statement will be made a part of the record.

Mr. FALEOMAVAEGA. Thank you.

Mr. REGULA. And we'll appreciate it if you'll summarize for us.

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman and members of the subcommittee.

Mr. Chairman, I have several requests to make this year as the ranking Democrat of the Subcommittee on Native American and Insular Affairs. I have incorporated into this statement my position on some funding issues which I believe warrant special attention.

And let me begin with the most dear to my heart, obviously, my district, American Samoa. Mr. Chairman, I believe you've been briefed by my joint efforts with Chairman Gallegly to provide a secure funding source for American Samoa. In close consultation with our Subcommittee Chairman Gallegly, we have designed and planned to provide funding for the improvement of the infrastructure in the territory. This multi-year authorization, if enacted into law, will provide increasing funding for the operations of the local government and increase the funding for capital improvements.

We are moving on parallel tracks this year with an appropriations and multi-year authorization, and I respectfully request the subcommittee to provide an appropriation in the amount of $34.5 million for American Samoa. I believe it was noted the administration had proposed a $39 million allocation. So we're asking for a decrease actually. I'll identify shortly the sources from which, hopefully, this money drawn, but if the subcommittee would allocate this amount, I believe the conforming legislation authorizing appropriation will be adopted later this year.

Also, Mr. Chairman, it would be appreciated if within the structure the subcommittee will include $1.8 million for improvements to the petroleum storage facility that we're working on now closely with the EPA and a million dollar appropriation for a gymnasium complex for the only public high school that currently does not have such a facility.

Concerning the Island of Rongelap, we all know the history of the relationship between the U.S. and the decision of our country over 40 years ago to conduct a nuclear testing program in the Marshalls. We still have not met our moral obligation to these people, and I am pleased that Chairman Gallegly considers this a top priority within the areas of this subcommittee's jurisdiction. I hope the members of this subcommittee will give it the same priority.

On the reductions in funding, Mr. Chairman, because of repeated problems over the years with the Office of Territories and Insular Affairs, Chairman Gallegly has proposed, and I have endorsed his proposal, to terminate that office. Earlier this year, the Secretary of the Interior began an Executive Branch reduction of this office.

The savings from that reduction, coupled with a reduction in money previous allocated to the Commonwealth of the Northern Mariana Islands, hopefully, will provide sufficient savings to meet our budgetary constraints with regard to the funding for American Samoa and the reconstruction of the Island of Rongelap.

On the territory of Guam, Mr. Chairman, of critical importance to Guam is the reimbursement of the impact on Guam for the Compact of Free Association between the United States and the Freely Associated States. Since 1986, the government of Guam has incurred unrestricted migration from these island countries, and in doing so, they've accumulated costs in educational and social services somewhere around $70 million. In the 103rd Congress, the House appropriated $4 million with $2.5 million being included in the Conference Report, and I hope the subcommittee will recognize this Federal obligation.

Mr. Chairman, concerning the American Indians, Congressman George Miller, the senior ranking Democrat of the full Committee on Resources, and I will submit a detailed request for additional funding for certain programs which affect Native Americans, but let me mention the programs and the amounts here for the record and as a cross-reference, and I will not elaborate on that. It's in my statement.

And, Mr. Chairman, I know your work is cut out for you this year. I fully expect it will get more difficult over the next few years before we get our budget in balance. As we move in that direction, I believe we can find bipartisan agreement in most areas, and I hope the members of the subcommittee will accept the small change proposed by the minority. Many of us would like to move this appropriation bill forward in a timely manner.

And, Mr. Chairman, I want to thank you for the opportunity to testify.

Mr. REGULA. Thank you.

Mr. Skeen?

Mr. SKEEN. Well, thank you, sir.

Mr. FALEOMAVAEGA. Thank you very much.

[The statement of Mr. Faleomavaega follows:]

ENI F. H. FALEOMAVAEGA
Member of Congress

Mr. Chairman:

I wish to present testimony today concerning the Office of Territorial and International Affairs and the Bureau of Indian Affairs.

Thank you and the other Members of the Subcommittee for providing two days for Members of Congress to present our testimony on the fiscal year 1996 Interior Appropriations Bill. Despite many changes we are undergoing this year, I am glad this tradition was preserved.

Mr. Chairman, I have several requests to make this year, and as the ranking Democratic member of the Subcommittee on Native American and Insular Affairs I have incorporated into this statement my position on some of funding issues which I believe warrant special attention. Let me begin with those most dear to my heart, namely American Samoa.

American Samoa. Mr. Chairman, I believe you have been briefed on my joint efforts with Chairman Gallegly to provide a secure funding source for American Samoa. In close consultation with our Subcommittee Chairman, we have designed a plan to provide funding for the improvement of the infrastructure in American Samoa. This multi-year authorization, if enacted into law, will provide decreasing funding for the operations of the local government and increasing funding for capital improvements.

As we are moving on parallel tracks this year with an appropriations and multi-year authorization, I request that the Subcommittee provide an appropriation in the amount of $34.5 million for American Samoa. I will identify shortly the sources from which some of this money may be drawn, but if the Subcommittee would allocate this amount, I believe conforming legislation authorizing the appropriation will be adopted later this year. With this approach we can keep vital municipal functions in operation in American Samoa for the next fiscal year.

Also, Mr. Chairman, it would be appreciated if within this structure the Subcommittee could include $1.8 million for improvements to the petroleum storage facility required by the U.S. environmental protection agency, and $1.0

million for a gymnasium complex for the only public high school in American Samoa which does not have a recreation facility.

Rongelap. We all know the history of the relationship between the United States and its decision over 40 years ago to use their home as a down-wind test site for the effects of nuclear radiation. We still have not met our moral obligation to these people, and I am pleased that Chairman Gallegly considers this a top priority within the areas of this Subcommittee's jurisdiction. I hope the Members of this Subcommittee will give it the same priority.

Reductions in funding. Mr. Chairman, because of repeated problems over the years with the Office of Territorial and International Affairs, Chairman Gallegly has proposed, and I have endorsed, termination of that office. Earlier this year, the Secretary of the Interior began an Executive Branch reduction of this office. The savings from that reduction coupled with a reduction in the money previously allocated to the Commonwealth of the Northern Mariana Islands, which Governor Froilan Tenorio has indicated is no longer needed in the Commonwealth, will provide sufficient savings to meet your budgetary constraints with regard to the funding of American Samoa and the reconstruction of the Island of Rongelap and the relocation of its people.

Guam. Mr. Chairman, of critical importance to Guam is reimbursement for the impact on Guam of the Compact of Free Association between the United States and the Freely Associated States. Since 1986, the government of Guam has incurred the cost of unrestricted migration from these nations. The cumulative costs of educational and social services to these habitual residents is about $70 million. The Compact (P.L. 99-239) states that any costs incurred as a result of this migration from the Freely Associated States should be compensated. In the 103rd Congress, the House appropriated $4 million with $2.5 million being included in the conference report. I hope the Subcommittee will recognize this federal obligation.

American Indians. Mr. Chairman, Congressman George Miller and I will submit a detailed request for additional funding for certain programs which affect American Indians, but let me mention the programs and the amounts here for the record and as a cross reference. For IHS Contract Support Costs, $10 million; for IHS Contract Health Services, $11 million; for BIA Tribal Priority Allocations, Public Safety and Justice, $53.4 million; and for the InterTribal Bison Cooperative, $1.952 million.

Mr. Chairman, I know your work is cut out for you this year, and I fully expect it will get more difficult over the next few years before we get our budget in balance. As we move in that direction, I believe that we can find bipartisan agreement in most areas, and I hope the Members of the Subcommittee will accept the small changes proposed by the minority. Many of us would like to move this appropriations bill forward in a timely manner with few or no bitter fights.

Thank you, Mr. Chairman.

WEDNESDAY, MARCH 29, 1995.

NPS—BICYCLE TRAILS IN MONTGOMERY COUNTY

WITNESS

HON. CONSTANCE A. MORELLA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mrs. MORELLA. Am I too late?

Mr. REGULA. We're just waiting on you, Connie; you know that.

Mrs. MORELLA. Thank you very much, Mr. Chairman and members of this very important committee. I am so sorry I'm late. I was in the Civil Service one on contracting out.

Mr. REGULA. Well, we'll put your full statement in the record.

Mrs. MORELLA. Thank you very much, and I'd like to submit maybe even an additional statement or a change in the statement I have before me, if that's okay.

Basically——

Mr. REGULA. That's perfectly all right.

Mrs. MORELLA. Thank you.

What I'm doing, basically, is picking up on my testimony through the years with regard to some of the items that I think are pretty important and not very expensive that would affect the region and, of course, Montgomery County.

I appreciate the opportunity that you always give to me to share my interest in two important facilities that mean a great deal to our constituents. One of them has to do with Glen Echo Park, and really what I'm asking for is simply $3 million for the removal and rehabilitation of unsafe utilities and structures in Glen Echo Park. With your support and leadership in previous years, some planning funds have been appropriated, but I am now told that the National Park Service can do the remaining electrical work, putting in the necessary new lines and the remaining utilities work, for $3 million in Fiscal Year 1996. We had hoped these improvements had been done before, but, evidently, they weren't. The improvements are essential for the safety in the approximately 355,000 visitors who are attracted to the cultural and recreational activities at Glen Echo Park. That's my first priority.

In addition to that, I would respectfully request that there be some safety improvements made to some hiking/biking trails that are not only in Montgomery County, but in the District of Columbia and Virginia that are really needed. As a matter of fact, the projects include one on the C&O Towpath; one on Rock Creek Park, Beach Drive Bypass; George Washington Memorial Parkway, Mt. Vernon Trail; National Capital Parks. And these are projects that I have cited in my testimony specifically, maybe even too specifically. I've given amounts and exactly where they're located, and they're derived directly from the National Park Service report entitled, "Paved Recreation Trails of the National Capital Region," which documents the need for the improvements. They also fit the long-term plan for bicycle facilities adopted by the Metropolitan Washington Council of Governments for addressing regional transportation issues.

Then, of course, there is a new study that came out in January of this year, that was cited in The Washington Post. It was conducted in October of 1994 by a San Francisco market research firm, American Lives, and the summary pointed out that walking and biking paths consistently rated at the very top of the features most wanted by 800 consumers interviewed, who either purchased or shopped for a home in five different States. And so, for safety and usability, and what it will do to improve the environment, these are not tremendously expensive projects.

As a final point, also, is I'd like to just put a little plug in for the National Historic Trust, which is truly a long-term investment in our cultural heritage.

I've finished my testimony. Glen Echo Park and hiking/biking trails—all these for safety—and, of course, the National Historic Trust.

Thank you very much.

Mr. REGULA. Mr. Skeen?

Mr. SKEEN. I have no questions, but let me ask you a question about the facilities. I'm assuming these are service facilities for electrical and——

Mrs. MORELLA. Yes.

Mr. SKEEN. We want to put them underground?

Mrs. MORELLA. Yes.

Mr. SKEEN. That's what they plan on doing?

Mrs. MORELLA. Exactly.

Mr. SKEEN. Okay. You mentioned the danger.

Mrs. MORELLA. Yes, and they've had this in their plans for some time.

Mr. SKEEN. So they've done the surveys?

Mrs. MORELLA. They have done the surveys; right.

Mr. SKEEN. Thank you, Mr. Chairman.

Mr. REGULA. Yes. I was interested did I see a wooden bridge on the George Washington Parkway, or replacement of a wooden bridge on the George Washington Parkway?

Mrs. MORELLA. Wooden bridge structures and sign installation.

Mr. REGULA. Is there a wooden bridge on the Parkway?

Mr. SKEEN. It's probably a hiker/biker——

Mrs. MORELLA. It's the hiker/biker part of it, yes.

Mr. REGULA. Oh, okay. So this is paralleling?

Mrs. MORELLA. Paralleling, yes.

Mr. REGULA. Okay. I thought it seemed strange that they would have a wooden bridge.

Mrs. MORELLA. That's right, and that the cost would only be $200,000, too. [Laughter.]

Mr. REGULA. Okay.

Mr. SKEEN. Well, it's on the route to the 14th Street. [Laughter.]

Mrs. MORELLA. Of course, the President wants to give all of these properties back to the States.

Mr. REGULA. Yes, right.

Mrs. MORELLA. I call that an unfunded mandate.

Mr. SKEEN. To the States?

Mrs. MORELLA. Yes.

Mr. SKEEN. Yes, I could see that coming.

Mrs. MORELLA. Not the greenways, just the asphalt part of it with the potholes.

Mr. REGULA. We'll make them toll roads then. [Laughter.]

Thank you very much.

Mrs. MORELLA. Thank you very much. Thank you.

[The statement of Mrs. Morella follows:]

CONGRESSWOMAN CONNIE MORELLA
8TH DISTRICT MARYLAND

National Park Service/National Capital Region

Mr. Chairman, I appreciate the opportunity you have afforded to allow me to share my special interest in two important facilities that mean a great deal to my Montgomery County constituents. These two are: $885,000 for hiking/biking trail improvements, and $3 million for Glen Echo Park to complete the utility replacements which were begun three years ago. These facilities are, of course, shared by all those living in the greater Washington area. In addition, I would like to ask that you fully fund the National Historic Trust -- truly a long term investment in our cultural heritage.

First of all, I have a package of hiking/biking trail improvements which are part of the model "greenway" network in our region. The first two are located in my Congressional District and the last two are contiguous to Montgomery County trails.

1) First and foremost is the C&O Towpath, Widewater Section: reconstruction of 750 feet of the tow path, a stone wall, and 80 feet of an existing wooden bridge. Cost: $500,000

Mr. Chairman, besides the recommendation and strong support by the Washington Area Bicyclist Association, there is a special safety issue here that is causing concern among the members on the C&O Commission and C&O Canal Association. I have been told that passage in this area is quite dangerous, especially for biking families with a child in their bike seat, and for older people. The detour involves steep climbs and is almost as difficult.

2) Rock Creek Park, Beach Drive By-Pass: Topographic survey for reconstruction and widening of asphalt trail to standard 8' along Beach Drive between Bingham Drive and Joyce Road; along Military Road between Oregon Avenue and Beach Drive; along Bingham Drive between Oregon Avenue and Beach Drive; and construction of a trail along Wise Road between Oregon Avenue and Beach Drive. Cost: $60,000.

3) George Washington Memorial Parkway, Mt. Vernon Trail: Continue asphalt resurfacing, replacement of wooden bridge structures and sign installation. Cost: $300,000.

4) National Capital Parks -- East, Fort Circle Hiker Biker Trail: Topographic surveys for:

a) Fort Stanton Section: Resurface approximately 3,800' of gravel trail, replace drainage culverts, install 100' of french drain, replace wooden foot bridge with wider one and install signage.

b) Fort Dupont Section - resurface approximately 1,800' of gravel trail, install cribbing at trail crossing, and repair storm outfall: Cost: $25,000

These projects are derived directly from the NPS/NCR report entitled Paved Recreation Trails of the National Capital Region (1990), which documents the need for these improvements. They also fit the long term plan for bicycle facilities adopted by the Metropolitan Washington Council of Governments for addressing regional transportation needs.

In defense of such a high priority for these projects, I would like to point out the results of a new study reported in the January 7th, 1995 Washington Post (but not yet officially released). This study was conducted in October 1994 by a San Francisco market research firm, American Lives, Inc., and a summary was reported in the April 1995 volume of Heritage Links: National Coalition for Heritage Areas. This clearly showed that "walking and biking paths" consistently rated at the very top of features most wanted by 800 consumers interviewed who either purchased or shopped for a home in five different states. In addition to the trail use by recreational cyclists and virtually all the 1800 members of WABA, countless Washingtonians rely on these trails for hiking, walking, running, strolling, or any other casual use.

My second request this year is for $3 million for the removal and rehabilitation of unsafe utilities and structures in Glen Echo Park. With your support and leadership in previous years some planning funds have been appropriated. I am told now that the National Park Service, can do the remaining electrical work, putting in the necessary new lines and the remaining utilites work for $3 million in FY '96. These improvements are essential for the safety of the approximately 350,000 visitors who are attracted to the cultural and recreational activities at Glen Echo Park.

WEDNESDAY, MARCH 29, 1995.

KEWEENAW NATIONAL HISTORIC PARK

THE ISLE ROYALE NATIONAL PARK

WITNESS

HON. BART STUPAK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. REGULA. Mr. Stupak, we'll put your full statement in the record and hear your comments on Keweenaw NHP and Isle Royale.

Mr. STUPAK. Thanks, Mr. Chairman.

Keweenaw National Park was created in 1992, and unlike other parks where the Federal Government comes in and buys everything and decides—and tried to operate everything within the boundaries, that's not the case in this park. Being created in 1992, it's really created underneath a State, Federal, and local cooperative partnership. In fact, in this park there are 17,00 acres. The Forest Service and the National Park Service does not own one acre of land—does not own one acre of land. There are 12 cooperative sites that have scattered across a distance of 100 miles which tells the unique history of this region. And, again, it's a cooperative. Sites are a mix of State property, private nonprofit property, and private for-profit corporations. And already—this has only been created in 1992—we have 600,000 visitors each year with very little input and really help from the Federal Government. Eventually, we hope that the Park Service does own some land into the 1,700-mile park—or excuse me, 1,700-acre park.

So the park is truly a unique partnership between the Federal, State, local, and private industry. The community has been undertaking efforts to renovate many buildings, and what we're asking for is, with a modest Federal investment, we can encourage private economic opportunity up there. The community is doing a number of things to preserve some of the key buildings. There's the Quincy Mine Host Association and Coppertown USA Museum. They're increasing their participation in trying to protect and preserve some of these buildings that are already in the park boundaries, as we call it. Michigan Technological University, which is up there, houses the world class mineral museum. And, again, throughout this whole area we have 12 cooperative sites that are working to coordinate visitor services with the Park Service without much Park Service help.

So what I'm here for today and what I'm asking the committee to do is to continue our effort in trying to help develop this park. The amounts awarded to this park thus far have been minimal at best. In fact, in Fiscal Year 1995 our operating base was $212,000—just $212,000. What I'm asking for is the community—in the President's budget he does have the $212,000; we're asking for an additional $395,000, for a grand total of $607,000 to operate a National Park Service which serves more than 600,000 people. So, I mean, it's a minimal increase, but with that money and with the cooperative relationship—and that's the new direction we're taking in parks anyway; this is one of the first prototypes—with that minimal increase, we can provide technical assistance, some preservation grants, and enhanced visitor understanding of the resources at the 12 cooperative sites. We would put out a couple more rangers, which would help us out as interpretative scientists and interpretative specialists, and really to critically stabilize some of these buildings which are well over 100 years old. Then we're going to acquire the Quincy smelter, and that's the area around the Coppertown Museum.

So here's one of the parks that we're all talking about trying to do in a new cooperative, spirited effort. We're asking for a modest increase of about $395,000. With that, it will bring our total appropriations for this park at $600,000. It certainly would go a long way in helping us out.

For the other parks in my district and throughout the country, there is a 2.4 increase in the President's budget request. We'd ask that that continue. I do have three other National Parks in my district: B.M. Sleepy Bear, Sand Dunes, Isle Royale, and also the Lake Superior Shoreline National Shoreline.

So, Mr. Chairman, that would be the main emphasis, the Keweenaw National Park, a slight increase there, and I would appreciate anything this committee can do.

Mr. REGULA. Is the Coppertown Museum privately operated?

Mr. STUPAK. It's a public not-for-profit. It's a group of volunteers that do it, and, yes, there is no financial help, nothing private in that, and that's a 501(c)(3) nonprofit corporation that runs that one, and they have been for some time.

Mr. REGULA. Well, do they charge admissions then?

Mr. STUPAK. Really donations, and then selling of T-shirts and copper and then anything else you can find. We don't have much up there, but what we do, we make it last and we'll get every penny we can out of those visitors to help support our park.

But we understand the days of the Federal Government coming in and taking over a park, buying everything within the boundaries, and trying to run it, no longer exist. Keweenaw National Park is the new emphasis and that's what we're trying to do, and we'd appreciate a little extra help this year.

Mr. REGULA. Thank you.

Mr. STUPAK. Thank you, Mr. Skeen.

Mr. SKEEN. Thank you, sir.

Mr. STUPAK. Thank you. I appreciate it.

[The statement of Mr. Stupak follows:]

TESTIMONY OF CONGRESSMAN BART STUPAK
BEFORE THE
APPROPRIATIONS SUBCOMMITTEE ON INTERIOR

March 29, 1995

Mr. Chairman, I appreciate the opportunity to testify today on behalf of the Keweenaw National Historical Park in my district.

Created in 1992, Keweenaw National Historical Park is one of the newest parks in our nation's national park system. It also serves as a prototype for national parks in the next century. Unlike most other parks where the Park Service owns and operates everything within the park boundary, this park is quite different.

As yet the National Park Service does not own any land within the 1,700 acre park boundary, and much of the land within the boundaries will stay in private ownership. A series of 12 cooperating sites, scattered across a distance of over 100 miles, tell various parts of the park's story. These cooperating sites are a mix of state, private non-profit, and private for-profit operations. Cumulatively, the cooperating sites already have about 600,000 visitors each year.

Eventually, there will be land within the boundaries owned by the National Park Service but most of it will remain under private ownership. The park may give technical assistance and award preservation assistance grants to these private properties, but those grants will have to be matched with four dollars for each federal dollar awarded.

This park is truly a partnership between the federal government, the local government and private industry. The community is undertaking efforts to renovate many buildings in the area. With a modest federal investment, we can encourage private economic activity. The community is undertaking comprehensive land use planning to protect the visual qualities of the area while still encouraging proper growth and development.

The Quincy Mine Hoist Association and Coppertown USA museum are increasing their protection of key buildings and land which they hope to transfer to the park when the park is ready. There is an excellent chance that two large buildings at the Quincy mine will be restored by a private/state partnership to house part of a world class mineral museum, operated by Michigan Technological University. The twelve Cooperating Sites located across the Keweenaw Peninsula are receiving visitors and coordinating their visitor services with the Park Service without much Park Service help.

I am asking this committee to continue the effort to preserve the heritage of the area by appropriating sufficient funds to allow the park to continue to develop. Building on the fiscal year '95 operating base of $212,000, I am asking the committee to appropriate an additional $395,000 - for a total appropriation in fiscal year '96 of $607,000.

This funding base would put us in the position in the summer of 1996 to be providing technical assistance and preservation grants called for in the establishing act, and enhancing visitor understanding of the resources of the Cooperating Sites. A number of season park rangers would be able to work during the summer of 1996 with this funding, which would provide funds for 4.8 FTE.

This funding would allow the park to hire a permanent part-time administrative assistant; hire a full-time park historian and interpretive specialist; develop visitor services and facilities at the Cooperating Sites of the park; and begin critically needed stabilization of buildings within the park boundary which we need to acquire in the future - namely, the Quincy Smelter and the area around Coppertown Museum.

Mr. Chairman, I appreciate your consideration of this request and would be happy to answer any questions you might have.

WEDNESDAY, MARCH 29, 1995.

LAND ACQUISITION—HOOSIER NATIONAL FOREST

WITNESS

HON. LEE H. HAMILTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mr. REGULA. Mr. Hamilton.

Mr. HAMILTON. Good morning.

Mr. REGULA. We'll make your full statement a part of the record.

Mr. HAMILTON. Okay, thank you very much. We've appreciated the support the subcommittee has given us, and the committee, in recent years for land acquisition for the Hoosier. You're familiar with this, Mr. Chairman.

Mr. REGULA. I surely am.

Mr. HAMILTON. I'm requesting $750,000. There's no condemnation proceedings involved here. They're just acquiring land as they can. I am informed that they have a lot of people that are prepared to sell to them, and so additional funds are needed. It's a very fragmented ownership pattern. In the Hoosier National, the Forest only own about 30 percent of the land in the boundaries and they're gradually extending it.

It's a rich and marvelous resource being well used in southern Indiana, and I just request that you continue to fund land acquisition, as you've done in the past. And I'm seeking your help.

Mr. REGULA. Do you get a heavy multiple use there?

Mr. HAMILTON. Oh, my, very heavy, all kinds of uses of that: forestation, recreation.

Mr. REGULA. Do you have a problem of people not knowing whether they are on public or private property?

Mr. HAMILTON. We do, yes.

Mr. REGULA. And I assume in their acquisition process they're filling in the gaps?

Mr. HAMILTON. That's exactly right. They're trying to give priority to contiguous land and to land that is ecologically fragile, and bringing as much as they can into the area without condemnation. They do emphasize recreation very heavily. It's a tremendously used National Forest, a major recreational area in our State.

Mr. REGULA. What kind of prices are they? It probably is fairly cheap.

Mr. HAMILTON. Oh, my, it is very cheap. Let me get that to you for the record. My recollection is was a couple of hundred dollars an acre, but I may be a little out of date on that. I'll try to supply it.

Mr. REGULA. Even if it were 50 percent more, it would still be pretty inexpensive as land prices go.

Mr. HAMILTON. Oh, yes. Yes.

Mr. REGULA. Mr. Skeen.

Mr. SKEEN. Thank you, Mr. Chairman.

What will be the eventual size, areawise?

Mr. HAMILTON. I can't answer that in terms of acres, but it's a very large area. It covers several counties actually. So it's tens of thousands of acres.

Mr. SKEEN. So there's quite an acquisition problem?

Mr. HAMILTON. A tremendous acquisition problem. It has been going on for many, many years. If you look at it on a map, it's very fragmented.

Mr. SKEEN. Much like some of our western States.

Mr. HAMILTON. It may very well be. But, you know, each year you're adding key land, and the process is a slow one, a gradual one, but it's quite encouraging actually.

Mr. SKEEN. What were the private sector people doing with it, farming it or timbering it?

Mr. HAMILTON. Yes, it's not farm land. It's——

Mr. SKEEN. Timber land?

Mr. HAMILTON. This is the area that the glacier came down across our State tens of thousands of years ago and stopped, pushing ahead of it——

Mr. SKEEN. You've got the gravel?

Mr. HAMILTON. And so the land is very hilly and very unproductive from the standpoint of agriculture; timber uses primarily, tourism, those kinds of things.

Mr. SKEEN. What kind of timber?

Mr. HAMILTON. Originally, it was hardwood, but a lot of that has now been taken out. So you have lots——

Mr. SKEEN. A lot of softwoods?

Mr. HAMILTON. Yes. We're trying to re-establish a number of the hardwoods there, making some progress on it. As a matter of fact, many of the industries in southern Indiana began there because it was one of the richest areas in the country for hardwood. And we still have many highly-skilled woodworkers in the area.

Mr. SKEEN. Thank you, Mr. Chairman.

Mr. HAMILTON. Thank you very much.

Mr. REGULA. Very much like the Wayne in Ohio?

Mr. HAMILTON. That's exactly right.

Mr. REGULA. We have The Wayne National Forest.

Mr. SKEEN. We've got a similar situation.

Mr. HAMILTON. Thank you very much.

Mr. REGULA. Thank you.

[The statement of Mr. Hamilton follows:]

LEE H. HAMILTON
9TH DISTRICT, INDIANA

COMMITTEES:

COMMITTEE ON INTERNATIONAL RELATIONS
JOINT ECONOMIC COMMITTEE

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THE HONORABLE LEE H. HAMILTON

Statement before the

House Appropriations Committee

Subcommittee on Interior

March 29, 1995

Mr. Chairman and members of the Interior Subcommittee. Thank you for providing me with an opportunity to testify today in support of a project of particular importance to the Ninth Congressional District of Indiana.

I am requesting your assistance today in approving the $750,000 in the President's FY 1996 budget for land acquisition in the Hoosier National Forest.

The proposed land acquisition would involve land purchases on a willing seller basis at appraised values. The U.S. Forest Service has advised that it has already been offered many tracts from willing sellers. The acquisition would not entail any condemnations.

This funding request would further the efforts of the Forest Service to implement the Hoosier's 1991 land management plan. The Forest is formed from a very fragmented ownership pattern and consists of only 30% of the land within its borders.

The Forest Service has worked with state agencies, interested groups, and individuals to develop land acquisition criteria for the Hoosier that meet the plan's goals and ensure that priority is given to lands with special ecological or public recreation values.

The Hoosier National Forest is a rich and wonderful asset to the people of Indiana and to all Americans. I want to do all I can to help preserve and protect the Hoosier National Forest for future generations.

I have appreciated your support in recent years to provide funding for land acquisition in the Hoosier, and urge your approval of the $750,000 request in the President's budget.

I would be happy to answer any questions you may have.

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

WEDNESDAY, MARCH 29, 1995.

GETTYSBURG NATIONAL MILITARY PARK

WITNESS

HON. BILL GOODLING, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. REGULA. Mr. Underwood cancelled. So our next is—well, here is Bill Goodling.

Mr. GOODLING. As we speak.

Mr. REGULA. As we speak. So you're all set.

Your full statement will be put in the record, and any comments you'd like to make——

Mr. GOODLING. Okay. I thank you. First of all, I thank all of you for hearing me, and I do have a prepared statement which you have by this time.

Just a few remarks: of course, I don't have to tell you about the park that I represent and the historic value and the educational value of that particular park. I also don't have to tell you that in 1990 we added 2,000 acres to that park, which means that now we have the job of securing that. They're trying to do a lot of easements, but at the same time it's certainly costly. So any money that you have for purposes such as that, don't forget that we have a 2,000-acre commitment that we have to deal with.

Mr. REGULA. So the boundaries have been expanded, but the land is not acquired yet?

Mr. GOODLING. That's right. They've talked to all the owners, and, as I said, they have moved ahead with a lot of easements, if they have the money to even do that, and then the purchases that they have to make.

We also have a problem at the Eisenhower place. We have a sewage problem there, and so the only thing they now have are Jiffy Johns. So it's——

Mr. REGULA. The septic system doesn't work?

Mr. GOODLING. No. So they have a real expense that they're going to have to deal with out there because they're getting thousands and thousands of visitors and no septic system.

So when I say if you have any money, if you have $2.5 million that you don't know what to do with, it would be used well, I can assure you, at the Gettysburg National Military Park and the Eisenhower area.

Mr. REGULA. Did you get the railroad problem solved?

Mr. GOODLING. I told the Park Director back in my district that he's to assure his boss that if he comes up here with any requests for $1 million, $2 million, $5 million for past history. I wouldn't come before the committee and ask for any money for the things that need to be done in that particular area. That's why they are not coming forth with any requests for anything of that nature.

Mr. REGULA. Marilyn's getting the message back there.

Mr. GOODLING. So, at any rate, that's why they're not coming forth with anything of that nature. You know, I had Mr. Vento there. He is the one who talked with all sides. I paid no attention to what they were doing. I had the No. 1 historian in the country, I suppose, General—I can't remember the General's last name. I went along with him when he brought the Secretary of Defense up to take him around and when we got to that point, broke into the conversation by saying, "Now this is that site that's supposed to be so terrible and how desecrated it is."

And the General said, first of all, "Do you see anything here?" I said no. He said you would have to go clear down around the back to look up to see what was done, and he said, secondly, there a lot of people who have a lot of different ideas of where the Maine force—the Maine, M-A-I-N-E, force—came in the first place, but he said that they were in on recommending that they make the exchange because if you can pick up—what was it?—47 acres for 7.5, and he said the 47 acres, it would have been destructive if they would have ever developed 47 acres, but this is no problem whatsoever.

So we're not asking for any money along that line, but we do need the $2.5 million if it's available, both for the Eisenhower setting and for the park.

Mr. Regula. Thank you.

Mr. Skeen.

Mr. Skeen. You are acquiring the Eisenhower farm?

Mr. Goodling. That was already——

Mr. Skeen. That was part of it?

Mr. Goodling. Yes. We need the 2,000, the extension of the boundaries, where we have to purchase and do easements with all those owners.

The Park Service did a great job in—you know, they could have created all sorts of havoc in that district, but they did a great job of holding meetings, hearings, responding to the questions.

Mr. Skeen. So they kept it as an amicable situation as they possible could?

Mr. Goodling. They were outstanding. There were a few dyed-in-the-wool "historians" who, if you took every step, every piece of land that a Yankee or a Rebel walked on during that time, they still wouldn't be satisfied. But the Park Service, in cooperation with our office, brought a very smooth transition on that whole deal, which could have been very explosive.

Mr. Skeen. Absolutely. Thank you, Bill.

Mr. Regula. Thank you.

[The statement of Mr. Goodling follows:]

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON THE INTERIOR

Testimony of

The Honorable William F. Goodling, M.C.
19th Congressional District, Pennsylvania
March 29, 1995

CHAIRMAN REGULA, MEMBERS OF THE SUBCOMMITTEE:

THANK YOU FOR THE OPPORTUNITY TO TESTIFY TODAY REGARDING SEVERAL NATIONAL PARK SERVICE PROJECTS WHICH WILL HAVE A SIGNIFICANT IMPACT ON SOUTH CENTRAL PENNSYLVANIA. THESE PROJECTS CONTINUE TO HAVE A POSITIVE EFFECT ON THE EDUCATIONAL AND HISTORICAL EXPERIENCE OF THOUSANDS OF VISITORS TO THE REGION.

I AM HERE TODAY TO REQUEST CONGRESS' CONTINUED SUPPORT FOR THE GETTYSBURG NATIONAL MILITARY PARK (GNMP) AND INCREASED SUPPORT FOR THE EISENHOWER NATIONAL HISTORIC SITE.

IN 1990, CONGRESS ENACTED PUBLIC LAW 101-377, WHICH PROVIDED A NEW PARK BOUNDARY ENCOMPASSING APPROXIMATELY 2,000 ADDITIONAL ACRES. THE ADMINISTRATION HAS REQUESTED $1.5 MILLION TO CONTINUE THE LAND ACQUISITION ESTABLISHED IN THE 1990 LAW. NEW PARK SERVICE CALCULATIONS ESTIMATE $2.5 MILLION WOULD BE NEEDED TO COMPLETE ACTIVE LAND ACQUISITION NEGOTIATIONS. I REQUEST THE COMMITTEE APPROVE $2.5 MILLION FOR FISCAL YEAR 1996 TO SATISFY LAND ACQUISITION IN THE GNMP.

ADDITIONALLY, THE GNMP WORKS WITH LOCAL GOVERNMENTS, ORGANIZATIONS AND LANDOWNERS IN COOPERATIVE EFFORTS WHICH COMPLEMENT PARK MISSIONS. HIGHLY SUCCESSFUL COOPERATIVE EFFORTS SUPPORTED BY THIS SUBCOMMITTEE IN THE PAST HAVE YIELDED GREAT RETURNS FOR RELATIVELY LITTLE FUNDING.

AN EXCELLENT EXAMPLE OF THIS COOPERATION IS THE GETTYSBURG HISTORIC PATHWAYS PROJECT. HISTORIC PATHWAYS IS A JOINT EFFORT OF THE BOROUGH OF GETTYSBURG, THE NATIONAL PARK SERVICE, THE COMMONWEALTH OF PENNSYLVANIA, AND OTHER PRIVATE AND PUBLIC ORGANIZATIONS. IT AIMS TO REVITALIZE GETTYSBURG'S HISTORIC CORRIDOR, LINKING SIGNIFICANT HISTORIC SITES AND STRUCTURES ASSOCIATED WITH THE CIVIL WAR, PRESIDENTS DWIGHT EISENHOWER AND ABRAHAM LINCOLN, AND GETTYSBURG BUSINESSES.

THIS YEAR, I AM REQUESTING $100,000 IN TECHNICAL ASSISTANCE, WHICH WILL PROMOTE JOINT EFFORTS THE PARK UNDERTAKES WITH LOCAL GOVERNMENTS AND INSTITUTIONS.

I AM ALSO REQUESTING THE SUBCOMMITTEE APPROVE FUNDING TO RECTIFY AN ONGOING EMBARRASSMENT AT THE EISENHOWER NATIONAL HISTORIC SITE (NHS). THE SEPTIC SYSTEM THAT SERVED THE EISENHOWER NHS BEGAN TO FAIL IN LATE FALL 1989, AND WAS SHUT DOWN BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES IN THE SUMMER OF 1990. SINCE THAT TIME, STAFF AND VISITORS ALIKE HAVE BEEN FORCED TO USE PORTABLE TOILETS. THIS GREATLY IMPACTS THE QUALITY OF THE GETTYSBURG EXPERIENCE FOR MANY PARK VISITORS, AND IS A SOURCE OF TERRIBLE INCONVENIENCE FOR THE ELDERLY AND DISABLED.

WISELY, THE PARK HAS PLACED A SEWER CONSTRUCTION PROJECT HIGH ON ITS NATIONAL PRIORITY LIST. THIS PROJECT WILL CONNECT ALL PARK SANITARY FACILITIES TO THE GETTYSBURG MUNICIPAL AUTHORITY THROUGHOUT THE GNMP AND EISENHOWER FARM. THIS CONNECTION WILL BRING THE PARKS INTO COMPLIANCE WITH STATE AND FEDERAL REGULATIONS. I SUPPORT THE ADMINISTRATION'S $2.55 MILLION SEWER CONSTRUCTION REQUEST, AND ASK THE SUBCOMMITTEE APPROVE THIS FUNDING TO RESOLVE THIS EMBARRASSING EPISODE.

I AM GRATEFUL FOR THIS SUBCOMMITTEE'S PAST SUPPORT OF PROGRAMS RELATING TO THE GNMP. I RESPECTFULLY REQUEST THE SUBCOMMITTEE CONSIDER THE FUNDING REQUESTS I HAVE OUTLINED, AND CONTINUE OUR STRONG SUPPORT FOR THE CROWN JEWEL OF OUR NATION'S MILITARY PARKS, THE NATIONAL MILITARY PARK AT GETTYSBURG.

WEDNESDAY, MARCH 29, 1995.

FORSYTHE NATIONAL WILDLIFE REFUGE

WITNESS

HON. JIM SAXTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. REGULA. Mr. Saxton, we'll put your full statement in the record and we'd appreciate your summarizing for us, so we can stay on schedule.

Mr. SAXTON. Well, Mr. Chairman, I'll be happy to do that.

Mr. Chairman, I appear here not knowing exactly the context in which to approach the situation, but let me just say this: the programs for the National Park Service and the Fish and Wildlife Service land acquisition programs, we have heard some word that the budget may suggest a five-year moratorium on these programs. And I would only say this: that in densely-populated areas like New Jersey and like some coastal areas of New England that I'm familiar with, I think the case can be adequately made that a penny wise/dollar foolish scenario can develop relative to savings that we try to accrue by putting a moratorium on programs that are in process in terms of land acquisition.

And the reason for that, I think I have a great example of what can happen. In New Jersey, for example, in the highly densely-populated area, there is a body of water in my district which is known as Barnegat Bay. We are currently looking at putting in place a program to clean it up or to keep it from getting more polluted. It's a very sensitive area. It has a great deal of wildlife. It's got great potential as a recreational area, and we are about to have it included in the National Estuarian Program to do studies to determine what it is that we have to do, either on the local level or the Federal level, to keep it from deteriorating further and to clean it up.

One of the programs that's in place that I'm here to talk about today is the expansion of the Forsythe National Wildlife Refuge, which is a program which is intended to maintain the open spaces which still exist around the Bay. Obviously, with nonpoint pollution being a tremendous problem in these kinds of situations, to save that land from development, which would be developed otherwise, and create more nonpoint source pollution, to further foul the Bay, is of critical importance.

We have had an ongoing program where we spend about $4 million a year to make acquisitions. There are four or five acquisitions that I won't mention specifically, but will be in my written testimony, which I think are important for that purpose.

I've talked with others, particularly, the ranking member, Mr. Studds, and there are some situations in New England which are similar, and I'm sure there are some situations which are similar throughout the coast of the United States. And so I guess my message is that I recognize that we're going to cut back on expenditures of all kinds, and so as we cut back on them, I hope we will take time to step back and recognize that down the road we may find ourselves spending a lot more to undo something that we could keep from happening by making these expenditures currently.

Thank you very much.

Mr. REGULA. Okay, thank you.

Mr. SAXTON. I ask that Mr. Studds' remarks be included.

Mr. REGULA. Oh, yes, we'll put those in the record.

Mr. SAXTON. Thank you.

Mr. REGULA. Thank you.

[The statement of Mr. Saxton follows:]

Testimony of

Congressman Jim Saxton

Regarding Interior Appropriations Requests

Subcommittee on Interior and Related Agencies
COMMITTEE ON APPROPRIATIONS

March 29, 1995

Since Fiscal 1990 Congress has invested on average $4 **MILLION** a year to maintain an acquisition program of National Importance for the E.B. **FORSYTHE NATIONAL WILDLIFE REFUGE** which falls primarily in my District, the Third Congressional District for the State of New Jersey.

The Forsythe contains critical feeding and nesting habitat for many species of birds on the Atlantic Flyway. The State of New Jersey is the most urbanized State in the country. And wetlands and upland habitat areas are quickly disappearing in the State. We must act now to acquire the last vestiges of critical habitat areas along the Barnegat Bay coastline. The habitat areas which I will talk about today have become increasingly important as other habitat areas in the State have been developed.

The Federal government is not alone in this endeavor of land acquisition in the State of New Jersey. The State of New Jersey has also maintained an aggressive campaign to obtain critical habitat in Barnegat Bay. As part of their commitment, local jurisdictions cooperatively manage and donate properties to the Refuge. Through the invaluable efforts of the Trust for Public Lands, a private conservancy, the Federal government has been able to acquire many acres of critical habitat.

Today, I will talk about three specific parcels of land that the U.S. Fish and Wildlife Service have identified as being critical habitat areas. All the lands are immediately available for acquisition.

First, is the **BEL AIR PARCEL AT BERKELEY.** This parcel has been approved for development of a three hundred unit housing development on 107 acres of land. This parcel is on the Maple Creek Riparian wetland area. The estimated value of this parcel is **$1,750,000 MILLION.**

Second, is **SLOOP CREEK**. The original landowner, who has sold most of his land, land which subsequently has been developed, is making available to the Fish and Wildlife Service 72 acres of critical wetland and upland buffer. The estimated value of this parcel is **$500,000 THOUSAND.**

The last parcel is at **SANDS POINT HARBOR.** This land is surrounded by already developed uplands. This particular parcel of 120 acres contains wetlands and upland habitat areas. Estimated value is **$1,500,000 MILLION.**

The last parcel which is not in my district but in Congressman Chris Smith's district but part of Forsythe Wildlife Refuge is **REEDY CREEK.** We need to buy the last parcels in this area which contains valuable wetlands. We have 70 acres with an estimated value of **$310,000 THOUSAND.**

Thank you for allowing me to testify today.

[The statement of Mr. Studds follows:]

Statement of the Honorable Gerry E. Studds
before the Subcommittee on Interior and Related Agencies
House Committee on Appropriations

March 29, 1995

Good morning Mr. Chairman, Mr. Yates, and Members of the Subcommittee. Thank you for the opportunity to present my views on appropriations for Fiscal Year 1996 for the Department of the Interior. I will be brief today, but I would be happy to supply additional information on any of the issues I discuss.

Firstly, I urge you to continue active land acquisition programs for the National Park Service and the Fish and Wildlife Service. I am aware that the Budget Committee has suggested a five-year moratorium on federal land acquisition. I know that there is some support for a moratorium, based, at least in part, on the idea that we should not be acquiring new lands when federal land management agencies do not have the funding to properly manage the lands that they now hold. I do not dispute this contention but I believe that it argues for more prioritized acquisition, rather than a hiatus.

In New England, for example, high population density and development place open space and wildlife habitat at a premium. Moreover, parks and wildlife refuges in New England generally enjoy strong public support. While I recognize the severe constraints under which you will be operating, I urge you to continue to fund worthy acquisitions. In New England, at least, even a minimally managed piece of wildlife habitat is better than no habitat at all.

There is one acquisition need in my district that is of particular importance to me. In April, the Fish and Wildlife Service will designate the Mashpee National Wildlife Refuge on Cape Cod. I believe that this refuge is a model for the future of the Refuge System because it will adopt a cooperative approach to managing state, town, and federal lands for wildlife conservation. Over 1,000 acres have already been acquired for the refuge by the state and the towns in which the refuge lies. Once the refuge is designated, these lands will continue to be managed by the state and the towns, but their management will be coordinated with the Fish and Wildlife Service.

The Mashpee Refuge, which enjoys overwhelming public support, will help to protect a major watershed on Cape Cod, and will include extensive wetlands and a large area of rare coastal forest. I request that the Subcommittee provide $1.75 million from the Land and Water Conservation Fund for the Fish and Wildlife Service to acquire a critical parcel of land that is threatened with development. The Trust for Public Land has just negotiated an option to buy this property if it can arrange financing.

Another major issue that I would like to bring to the Subcommittee's attention is funding for Endangered Species Act implementation. We all know that the ESA is controversial and that its reauthorization will be contentious. However, we are proceeding with that process within the authorizing Committee, which is the proper place for that debate. I urge the Subcommittee to resist attempts at quick fixes for the ESA through the appropriations process.

We all recognize that there are flaws in the way that the ESA has been implemented over the last two decades, but we cannot abandon a law that has set the global standard for wildlife protection. With increasing population growth, we, as a nation, must actively pursue wildlife and biodiversity conservation if we are to preserve our rich natural heritage. The Endangered Species Act, in all its glorious imperfection, is the keystone for wildlife conservation. I strongly support the President's request for ESA activities.

In addition, I urge the Subcommittee to support the President's request for the Partners in Wildlife program and the Cooperative Endangered Species Fund. These voluntary programs work with state and local governments, and private landowners, to promote wildlife conservation. Increased funding for these programs is a wise investment because it helps to avoid the need to invoke the more prescriptive, and expensive, measures required under the Endangered Species Act.

I understand that the Administration has proposed to transfer the Partners in Wildlife program to willing states, beginning in Fiscal Year 1997, as part of phase II of the reinventing government initiative. I have no opposition to transferring the program to the states, if they are willing and able to support it. However, I would urge the Subcommittee to fully fund the program for FY 1996 and carefully consider the consequences of transferring it to the states. It seems to me that Partners in Wildlife is just the kind of cooperative, proactive approach to wildlife conservation that the Department--and this Congress-- should be supporting, whether it is administered in-house or externally.

Thank you again for the opportunity to testify and I would be happy to answer any questions that you may have.

WEDNESDAY, MARCH 29, 1995.

STONES RIVER NATIONAL BATTLEFIELD

WITNESS

HON. BART GORDON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mr. REGULA. Bart Gordon, we're happy to have you.

Mr. GORDON. Thank you. Thank you. I appreciate your time.

Mr. REGULA. Your full statement will be made a part of the record.

Mr. GORDON. And I'll try to be very brief here.

You know, I know you're sitting here listening to everybody talk about all these good things, asking——

Mr. REGULA. Well, they are all good things.

Mr. GORDON. They are, and it must be so frustrating because you've got limited funds.

Mr. REGULA. That's right.

Mr. GORDON. And I think I'm probably here with the most modest request dollarwise anyone will make, and so that's the good news. I'm going to—let me take just a quick moment to bring you up to date on a project of interest to me. You know, every day we're voting for a defense bill or a debt reduction or this or that, which are important, but you never see the effects. You can't touch it and feel it.

Mr. REGULA. Right.

Mr. GORDON. You know, we go home; we work hard; we take grief. You know, you have to have a reason to be here, and one of the things that I can see and touch and feel every day is Stones River National Battlefield. It's in my home town of Murfreesboro, and when I drive by there, I see that I made a little bit of difference, and it—I guess there's a B–2 flying somewhere and I guess there's a space station up there, but I can't see them or feel them, but I see and feel Stones River Battlefield everyday.

But we're here for more than just for me. So let me tell you why I think that's significant. Stones River Battlefield was put in former Secretary of the Interior Lujan's top 25 most threatened battlefields, and the Civil War Advisory Committee just got through doing a survey and they said there were 10,500 battles during the Civil War, but only 48 of those had an impact on the outcome of the War. They said the Stones River Battlefield was one of those.

Mr. REGULA. Who won?

Mr. GORDON. Who won? We're still trying to figure that one out.

Mr. REGULA. We know the big one, but I wondered——

Mr. GORDON. Oh, the Stones River?

Mr. REGULA. Yes.

Mr. GORDON. The Union won with tremendous casualties. It was a battle that was fought on New Year's Eve; there were 128,000 people involved and there were 68,000 casualties. Half the people in that battle were casualties.

Mr. REGULA. Is there a cemetery there?

Mr. GORDON. Yes. So really, you know, it's hard to say. The ones that were left there was the Union, and it opened things up for them to go into the South. But when you have half the people die, you know, who wins a battle like that? That's—but I guess that's an another problem.

But of those 48 battlefields that they said had an impact on the outcome of the War, Stones River is the smallest one, and it goes back to more history than you want to know. But at the time it was created, I think we probably had some of my southern brethren were chairmen of the various committees and they didn't really want to honor another Union victory. So it was set up as a smaller park.

Murfreesboro is also the fastest growing community in Tennessee, one of the 50 fastest growing in the Nation. The Park Service now recognizes the importance of this battle and this battlefield, but because of all of the growth, we're just losing all opportunities.

I can't tell you the frustration—and I hope that maybe this committee somewhere along the line could have some hearings on procedure within the Department of Interior. It's not that they're bad folks; it's that we have, I guess to protect ourselves—or when I say, "ourselves," taxpayers—from abuse, we set up so many hoops they have to go through; they can't do their job. And it is just amazingly frustrating, the red tape they have to go through, but that's proceeding in one way. One day we're going to get it done.

After the Battle of Stones River, the Union forces built what was called Fortress Rosecrans which is the largest earthen fort built during the Civil War. And the Park Service has come down now and they have restored that area. It's amazing. You can walk in there and the mounds and the—I wish I had brought photographs. It's just amazing to think that these emplacements are still there. That is just being completed.

There was a—within a fortress there's sections called "readouts," and a readout is where you would retreat to if the fort was overrun. And one of those is left, and Park Service is working on it as we speak.

But, as often happens, when it takes three or four or five years to do a project, you find that you didn't have enough money to start off with. Our fort is broken, but what this committee did—and I think it was smart—they put up on a bridge. There was a pot of money for Rosecrans, a pot of money for Brannan Readout. Rosecrans is going first. So what they did is, they put a bridge so that if Rosecrans needed some more money, they could get into the Brannan readout pot and keep this flow going. They were within $7,000 of having it right on the money, which is pretty good, but then there happen to be another problem that came up with power line removals, which is $45,000. So they were $57,000, I think, short or $52,000, Rosecrans. So they went into Brannan readout to get that money. And Brannan readout was find, and I've got all the figures here, the redigging, and what that would be.

The problem we've gotten into is that the price of property keeps going up in this town. So the property that we need to buy, which is for a parking lot right next door, they estimated, I think, was $75,000. Now it looks like it's going to cost $150,000. The bottom line to all this is on these two projects they estimate that they are $202,000 short.

Mr. **REGULA**. So you need the $202,000?

Mr. **GORDON**. Yes, that's right, and I'd settle for $200,000. We'll just round that, round it right off.

Mr. **REGULA**. We'd better grab that one.

Mr. **GORDON**. I think it's probably the most modest request.

There are also—this battle was fought over a wide area. And because the park is so small, there are little clumps—I think we'll be a model of urban parks in the future. You have a couple of acres of something here, five acres there where different things happened, but they are not connected. But they all happened along the Stones River. So they are building a trail along the Stones River that will—between the two major areas—that will connect these areas. It has gone on and on and on, and again all the problems they have.

They let the contract on March the 7th. Then on April the 7th, they're going to open them. There is a chance that we're going to need $100,000 or $200,000 there to finish that, but I think it's going to be, again, in the modest area. And I can tell you specifically the first part of April.

These are ongoing projects. I'm not here asking for anything new, and I'm making some modest requests to try to finish this crusade of the last eight years and finally get something done.

So knowing more than you really want to know, I——

Mr. REGULA. We'll look at it. Do you have any other park facilities, any place you can reprogram?

Mr. GORDON. No.

Mr. REGULA. So this is urgent by your description?

Mr. GORDON. I think—you mean from the Stones—from other accounts within Stones River?

Mr. REGULA. Yes, within your district.

Mr. GORDON. No, there really isn't anything else.

Mr. REGULA. That's it?

Mr. GORDON. That's the only thing there.

Mr. REGULA. Okay. Thank you. We'll do what we can.

Mr. GORDON. Thank you again for your time and attention, and I'll be in touch with your staff to see what any other kind of documentation——

Mr. REGULA. Okay.

Mr. GORDON. This is good and I'm satisfied, and anything you want to know I can get for you.

Mr. REGULA. Okay.

Mr. GORDON. Thanks.

Mr. REGULA. Thank you.

[The statement of Mr. Gordon follows:]

BART GORDON
6TH DISTRICT, TENNESSEE

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House of Representatives

STATEMENT OF THE HONORABLE BART GORDON BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON THE INTERIOR AND RELATED AGENCIES

MARCH 29, 1995

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

Mr. Chairman and members of the Subcommittee, it's good to see you again, albeit a little different from last Congress. I appreciate your affording me the opportunity to testify in support of a very important project.

Over the past several years the subcommittee has provided funding for various expansion, stabilization and interpretation projects at Stones River National Battlefield in my hometown of Murfreesboro, Tennessee. I want to once again thank the Chairman and Mr. Yates for all of your past support and advice.

I am pleased to report that things are moving along well at the Battlefield. Last October Park Service Director Roger Kennedy travelled to Murfreesboro to presided over the official opening of Fortress Rosecrans. As we speak crews are working on stabilizing Redoubt Brannan. As you recall, Fortress Rosecrans was the largest earthen fortress constructed during the Civil War. Redoubt Brannan was part of the overall fortress complex which played the important, strategic role of protecting the Stones River, the railroad tracks and the main road leading into Nashville.

The costs estimates to stabilize and interpret Redoubt Brannan from which I based my funding request in 1991 have proven to be generally accurate. We have, however, run into some unexpected costs which necessitate an additional appropriation of $203,000.

The price of real estate is the primary reason for the increased costs. Every time I have testified before this subcommittee I have said the number one problem we face is commercial and residential development and that our worst enemy is time.

Stones River National Battlefield is located in Rutherford County which is the fastest growing county in the state and one of the fifty fastest growing in the country. Every month that goes by the cost of property increases and the chances of losing very historically significant land to development multiplies.

I am also pleased to report that the City of Murfreesboro will be letting the contract for the construction of the historic river trail on April 7, 1995. Tennessee currently has a 4 percent unemployment rate. While a healthy economy and low unemployment are normally great news, it has increased labor costs and the price of construction. I would like to put the subcommittee on notice that we may need additional funds to successfully complete the project without bringing construction to a complete halt. I should have a better idea by the time the subcommittee goes to markup as to whether we will need a supplemental appropriation.

Nearly every chance I get I visit the Battlefield. I am really pleased with the progress, and I'm encouraged by the number and variety of out of state license plates I see on cars in the parking lots. I am told attendance is up during the first two months of 1995 and I fully expect that to continue through the summer and fall.

Finally, I would like to compliment the Superintendent of Stones River National Battlefield, Mary Ann Peckham, and her staff for all of their hard work and dedication to making the battlefield the best it can be. They are truly professional people who are tremendous assets to the National Park Service.

Completing work at Stones River is very personal and important. Murfreesboro is my home and I want to make this cultural resource as educational and enjoyable as possible for Rutherford countians and visitors from all over the United States and foreign countries.

Thank you again for all of your past help and support. I'll be glad to answer any questions.

WEDNESDAY, MARCH 29, 1995.

SANTA MONICA MOUNTAINS NRA—LAND ACQUISITION

WITNESS

HON. ANTHONY C. BEILENSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. BEILENSON. Hi, Mr. Chairman.

Mr. REGULA. Hi, Tony.

We're waiting for a couple of others.

We'll put your full statement in the record and appreciate your summarizing.

Mr. BEILENSON. Yes, I've got copies to you.

I'm here to testify on a couple of things, sir. First of all, I appreciate the opportunity to testify before your subcommittee in support of at least $4.3 million for land acquisition in the Santa Monica Mountains NRA. You know a great deal about that, sir. We appreciate very much your support in the past for this project, and we hope, despite the severe budgetary constraints, that you'll be able to provide as much money as possible to help us secure——

Mr. REGULA. Is California doing their share? They have park lands right adjacent to Santa Monica, as I recall.

Mr. BEILENSON. They do. The most exciting thing about it, Mr. Chairman, if I may say, is the fact that we've been working hand-in-glove with the State people, and now with the local people, too, making this all come about.

But there are three major State parks in the vicinity. The whole thing is, in a sense, melding together to a certain extent.

Mr. REGULA. Are the commissioners working with you? They were rezoning and making the land costs go sky high.

Mr. BEILENSON. The supervisors in Los Angeles County have, if I may say so, behaved much better in recent years and they have not made things more difficult.

Mr. REGULA. All right.

Mr. BEILENSON. They have not helped a huge amount, but the State has helped a huge amount. We've had a very good working relationship with the State, and in recent years, as the chairman will recall, the State actually has made more money available through bond issues, than has the Federal Government, and they've taken the lead in acquiring some of the lands. In a sense, we're sharing with them.

So it's an important project, as the gentleman knows. It's one where we've now got 21,000 acres. We hope to end up with about 36,000 acres.

And I commend our statement to the Chair's attention. We speak about specific properties that we think are important to acquire, and, specifically, some relatively modest-sized properties that are, in fact, inholdings where property owners now have been waiting for quite some time for us to make good on our promise.

Mr. REGULA. We have willing sellers; right?

Mr. BEILENSON. Yes, we do. Yes, we have. We have more willing sellers than we have the money to take care of. So that's one area where I think it might be of use.

Anyway, thank you for letting me speak about that, and, also, a word, if I may, Mr. Chairman, on one other interesting thing, if I may, is that a large fraction of the park, close to a quarter of the acreage of the park, burnt over last year when we had those big fires, which is good in many respects. I mean, actually, it has rejuvenated a good portion of the park. A lot of the brush, a lot of the flora has revitalized.

On top of that also, interestingly, although this is not the concern, I suppose, immediately of this committee and of the Congress, we saved government at all levels an awful lot of money by, in effect, having taken out of private ownership and the possibility of development and building of homes a lot of acreage in an area where we shouldn't be building anyway because it's in the park. So there was no damage, in effect. The land was burned over, but it's coming back, as Nature would have it, and it hasn't cost us any money.

Mr. REGULA. It saved us money in the FEMA budget.

Mr. BEILENSON. Exactly. It saved us a huge amount. In all seriousness, I'm sure it saved us $20, $30, $80 million in the FEMA budget.

Secondly, Mr. Chairman, I wanted to say a quick word on behalf of a couple of small, but really valuable and very exciting projects, one of which you all have helped with in the recent past, and that's the African elephant conservation fund, and the other is a more recent one which Jack Fields and I were mainly responsible for. We are requesting $1.169 million for the elephant conservation fund, and $400,000 for rhino/tiger conservation fund, both of which are administered by the Fish and Wildlife Service. The African elephant fund, which has been in existence now for just a few years, has been probably the most successful overseas effort of the Fish and Wildlife Service. We have really turned around the whole situation of the African elephant, which has lost about 75 percent of its numbers over the past decade or so. And there's a lot of specificity here as to what we're doing with the money, and it's very well used.

But, secondly, if I may just call the Chair's attention to a little known fact. There are only about 11—it's sad and it's tragic—there about 11,000 rhinoceroses left in the world and about 5,000 or 6,000 tigers. It's incredible. These animals we've grown up with and known about ever since we were kids may well disappear from the face of the earth during our lifetime, during the next 20 or 30 years or so.

Mr. Fields and I, with some help from Mr. Studds, a year or so ago, began making an effort to try to save rhinos and tigers, as well as elephants. We're having some modest initial successes. This is a very small amount of money. We commend it to your attention. I think it's a very—it's a very small, but a very useful and a valiant thing that we're trying to do, and we need your help with respect to it.

And, again, we have a lot of specificity here in terms of what actually we're doing, and I won't take your time with it now, but these are all modest requests, but they're all valuable little programs and we hope you're able to——

Mr. REGULA. Overseas, I assume the money goes over there. The National Geographic had quite an extensive story, about the—I think it was the tiger.

Mr. BEILENSON. Yes, about the tigers diminishing. Yes, it's terribly, terribly sad, the fact that they may cease to exist, except perhaps in zoos, in another generation.

Mr. REGULA. Well, a lot of the countries of domicile are not making much effort.

Mr. BEILENSON. But they are now with some help from us. That's what's happened with the elephants.

Mr. REGULA. Yes.

Mr. BEILENSON. It's so difficult for them to do so, but we're teaching them, in effect, helping to train them that tourism is an important asset to them, and it's taking hold with respect to the elephants, and, hopefully, it will with the other two beasts as well.

Mr. REGULA. Thank you.

Mr. BEILENSON. Thank you, sir, very much.

Mr. REGULA. It's good to see you.

Maybe we can get a contribution from Exxon on the tiger fund. They put them in their tanks, you know. [Laughter.]

Mr. BEILENSON. That's not a bad idea, as a matter of fact. Thank you.

Mr. REGULA. Are you getting a lot of visitation in Santa Monica.

Mr. BEILENSON. Huge amounts, huge amounts. One of these days it's going to be the most—it's—you know, one of the things we mention in here is the fact that within an hour's drive of it live 15 million people. Unfortunately, the numbers of people that live within an hour or so of it probably will double.

Mr. REGULA. Thank you.

[The statement of Mr. Beilenson follows:]

STATEMENT OF HON. ANTHONY C. BEILENSON
BEFORE THE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS
March 29, 1995

Mr. Chairman, I appreciate the opportunity to testify before your subcommittee in support of at least $4.3 million for land acquisition in the Santa Monica Mountains National Recreation Area (NRA), a unit of the National Park Service.

We greatly appreciate the past support this subcommittee has shown for acquiring land in the Santa Monicas, and we hope that, despite the severe budgetary constraints we will be operating under this year, you will continue to provide as much funding as possible to help secure the land the National Park Service still needs to acquire to have an adequate land base for the park.

With the $5 million appropriated by Congress for FY 95, the National Park Service has completed the purchase of a long-sought-after 314-acre property adjoining Paramount Ranch, which is the NRA's most heavily used visitor site. The Paramount Ranch extension was needed not only to expand opportunities for public use there, but also to protect the Park Service's investment in the original Paramount Ranch property.

Because of the progress we have made there recently, the National Park Service now owns about 21,000 acres in the Santa Monicas. However, the Park Service is still short of its goal of acquiring about 36,000 acres.

As always, the cost of the land that the National Park Service would like to purchase next year far exceeds the amount we can realistically ask for. However, I hope that for FY 96, this subcommittee will provide at least the $4.3 million requested by the Clinton Administration, and preferably the $8 million recommended by the 53 environmental groups which comprise the Land and Water Conservation Fund Coalition.

That Coalition, incidentally, has reminded us in its publication entitled Keeping the Promise: Priorities for the Land and Water Conservation Fund - FY 96 Priorities that Congress has been appropriating far less than the $900 million that is raised each year through revenues--mostly outercontinental shelf royalties--specifically intended for the purpose of meeting our citizens' needs for outdoor recreation and open space, and of preserving critical habitats. Because appropriations for land acquisition have been far below the authorized amount for the last decade and a half, the LWCF reserve now has a balance of about $10.7 billion, while the backlog of acquisition needs keeps growing.

The $4.3 million Administration request I referred to is actually two separate requests. It includes $1.3 million that was requested as a supplemental appropriation for FY 95 to replenish funds that were borrowed from the Santa Monica Mountains land acquisition account to pay for emergency firefighting last year. However, that replenishment was omitted from the FY 95 supplemental appropriations bill which the House of Representatives approved recently. The remaining $3 million is the amount the Administration has requested for land acquisition for FY 96.

The National Park Service would like to use those funds to acquire properties along the Backbone Trail, and in Zuma and Trancas Canyons, and in various other areas. Throughout the priority acquisition areas, there are small property owners who are eagerly awaiting the opportunity to sell their land to the Park Service. In many cases, they bought land with the intention of developing it, only to find now that they are surrounded by public land and unable to gain the access they need to build. We are doing a great disservice to those inholders if we do not provide the funding the National Park Service needs to purchase those properties.

In terms of serving the greatest number of people now and in the future, there really is no better place to spend our limited park land acquisition funds than in the Santa Monicas. At this time, fifteen million people live within 100 miles of the Santa Monica Mountains NRA, and the population in our region is projected to continue to grow substantially.

This park is not only a wonderful place to hike and enjoy being outdoors; it is also probably our region's most important resource for environmental and cultural education. I have no doubt that it will eventually be one of the most frequently visited units of the entire national park system.

In addition, the Santa Monica Mountains NRA contains a wealth of natural and cultural resources that is truly astonishing for an area in such close proximity to dense, urban development. Ecologically, it is extraordinarily diverse, and it is home to at least ten threatened plant and animal species. There are bobcats, mountain lions, hawks, and golden eagles that inhabit the area. And, there are believed to be over 1,000 Native American archeological sites in the mountains.

Another reason it makes so much sense to try to save as much land there as possible is because of the mountains' susceptibility to fires and mudslides. In the Greenmeadows and Old Topanga fires that occurred in the fall of 1993, 5,854 acres of land owned by the National Park Service was burned.

It is very likely that we saved large sums of taxpayers' dollars in disaster assistance and, of course, prevented the heartache of additional homes being destroyed and possibly the injury or even death of many people, by having a significant amount of land there already in public ownership as open space. We will undoubtedly save enormous sums on disaster aid in the future if we continue purchasing land there before it is developed.

Thank you, again, for this opportunity to testify and for your consideration of this request.

WEDNESDAY, MARCH 29, 1995.

FOREST SERVICE STUDY IN LOS PADRES NATIONAL FOREST

BIG SUR LAND PURCHASES

PINNACLES NATIONAL MONUMENT

U.S. GEOLOGICAL SURVEY STUDY OF MONTEREY BAY NATIONAL MARINE SANCTUARY AND CENTRAL COAST REGION

WITNESS

HON. SAM FARR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REGULA. Sam.

Mr. FARR. Well, thank you very much.

Mr. REGULA. We'll put your full statement in the record.

Mr. FARR. I'll try to be very brief for you.

Mr. REGULA. You can give us a brief summary.

Mr. FARR. Well, thank you very much, Mr. Chairman. I appreciate your time.

Mr. REGULA. We're glad you came. We're trying to stay on schedule, and a few have been missing. So we'll go ahead with yours.

Mr. FARR. Well, thank you.

I think when you were out in California, you might have even seen the area I'm going to talk about. It's Las Padres National Forest and it's essentially the Big Sur region of the California coastline. What I'm asking for is something that is not in the administration's budget. It's a small request. It's $150,000, but it's a big item for a school district. We have a one-room K–12, kindergarten through the 12th grade, school district in the Big Sur area that educates a lot of the children that work for the Federal Government and for Cal Trans, the highway department, in this rural area, and they need some funding. Under, I guess, Fiscal Year 1992, then-Chairman Yates and Representative Panetta, my predecessor, had worked out, confirmed that—in the testimony there was a colloquy that went on between them, essentially, a commitment to participate in the project, but it never came through. So without the study, the plans for construction of a small high school for this one-room school district would be the—construction cannot proceed. So that's why we're requesting $150,000. They certainly don't have it in their budget, and it is on Forest Service land.

Second, what's in the administration's request is—and I support it—funds to continue the land protection efforts along the world-renown Big Sur coastline. I urge strong support. I, frankly, wish we could get more money because the Big Sur coastline, as you saw it, most of what you saw is in private ownership, and the forest is sort of inland a little bit.

Mr. REGULA. Is the forest on the Pacific side or is it over the mountains?

Mr. FARR. It's over the mountains. And what's happening is that—except in the southern part of the coastline, then it's all forest right down to the ocean, but in the area between Carmel and Big Sur and south of the canyon of Big Sur, the whole 70-mile coastline is called Big Sur, but there is a spot in the middle where the river, Big Sur, runs through it, and the whole community. That's probably as far as most people drive, and they turn around and come back to the Monterey Peninsula.

The landowners have been willing sellers because, essentially, the families who have owned don't want to see it developed, and they've love to be able to sell it to the Forest Service.

Mr. REGULA. It's like the ranch along there. I met the owner of a ranch that is along the highway, I think. I saw the cattle when we drove down there.

Mr. FARR. Yes, there's a Mr. Hill.

Mr. REGULA. That's it; I met him.

Mr. FARR. He has a 10,000-acre ranch which is a old Spanish land grant, which was interesting. See, people like him would be willing sell to the Government before they would sell to another private—to a developer because they want to keep the land—the difficulty is that we've never had much money. This is a $2 million request from the administration.

Mr. REGULA. Well, does the Coastal Zoning Commission control what can be done on that land?

Mr. FARR. It controls development. It's a development. The coastal act in California, much maligned and misunderstood, is a coastal development act.

Mr. REGULA. Yes.

Mr. FARR. And in that they also indicate where development can occur and cannot occur and under what procedures it should occur.

Mr. REGULA. Sort of a super-zoning commission?

Mr. FARR. It is, but it's been put together by local governments. Each local government had to meet State criteria. The State said here are our basic principles. When you design along the coast, you design the plan to fit that criteria, and then the plan will be adopted by the State, and then the local governments will implement the plan. And the Federal Government has, because under coastal zone management legislation, delegated the responsibility for Federal decisionmaking on the coastline to the Coastal Commission—so, essentially, the best part about it in the land use plan is you truly have a one-stop government—we never had that before—where all the decisions for private and public decisions that are made along the coastline are made at the same place, and there is equity and fairness and an equal playing field to all of that.

But, anyway, the Commission—the county of Monterey and the county of San Luis Obispo have adopted coastal zone management plans, but what they allow, which is where the battle always is, it's a development plan rather than a preservation plan. And so if you can buy the land or the development rights, you move it from less development to more preservation, which is what I think that area of the world—they don't want a national park, but they would like to have the Forest Service continue to manage it.

Lastly, the last article I'd like to bring to your attention , which is also not in the administration's request, is support for inclusion of language in the Interior appropriations bill directing the National Park Service to apply up to $40,000 of the relevant budget item for general research funds for a systematic and comprehensive review of the boundaries of the Pinnacles National Monument. And then we list the criteria to be—are cited in Public Law 101–68, section 12–16, and the question is whether the existing boundary provides for adequate protection and preservation of the national historic, cultural, scenic, and recreational resources.

"An evaluation of each parcel proposed for addition or deletion based on this analysis and an assessment of the impact of the potential boundary adjustments, taking into consideration the factors listed above, as well as the effect of adjustments on local communities and surrounding areas"—so those are the two additional requests to the ones that are before you from the administration.

I appreciate your time and consideration. Thank you very much.

Mr. REGULA. Thank you.

[The statement of Mr. Farr follows:]

REP.SAM FARR (17TH-CA) TESTIMONY BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR

March 29, 1995

Mr. Chairman, members of the committee, it is a pleasure to be here today before this committee. I thank you for the opportunity to request your support for several important projects in my district.

FOREST SERVICE STUDY IN LOS PADRES NATIONAL FOREST (PACIFIC VALLEY SCHOOL DISTRICT): $150,000

I respectfully request your support for $150,000 in the FY 1996 Interior Appropriations bill to carry out an environmental impact study and the required technical studies in the Los Padres National Forest.

In a colloquy in June 1991 between Chairman Yates and Rep. Panetta for FY 1992, the Chairman confirmed that "Under the funds expended in this act for the operation of the Forest Service, it is expected that the Forest Service will conduct the archeological mapping and survey of the lands within the Los Padres National Forest". Authorization to participate in this project has still not been relayed by the National Forest to the Monterey District Ranger of Los Padres National Forest.

Without this study, plans for the construction of a small high-school in this rural area (which would be the School District's first and only high-school) cannot proceed.

BIG SUR LAND PURCHASES INCLUDING COZY COVE: $2.0 MILLION

I respectfully request your support for funds to continue the land protection efforts along the world-renowned Big Sur coastline. This request is in the FY'96 Presidential Budget.

The strong support of the subcommittee in the past three years has allowed the Forest Service to acquire portions of the 1,714-acre Sur Sur Ranch in the Los Padres National Forest. This has complemented on-going state, county and private conservation efforts to protect Big Sur's resources for the millions of visitors who are drawn to this scenic area each year. This year, an appropriation of $2.0 million will allow the Forest Service to continue this program by completing preservation of the Cozy Cove Ranch and securing neighboring critical lands at the southern gateway to Big Sur.

Located next to the Los Padres National Forest National Forest in the Southern Portion of Big Sur, this 273-acre property includes scenic ocean-facing slopes above California State Scenic Highway One. The property has half a mile of highway frontage, making it a priority for viewshed protection, also making it a target for incompatible development. The first 173 acres were purchased in FY 1995.

PINNACLES NATIONAL MONUMENT : $40,000

I respectfully request your support for the inclusion of language in the Interior Appropriations bill directing the National Park Service to apply up to $40,000 of the relevant budget for general research funds for a systematic and comprehensive review of the boundaries of the Pinnacles National Monument. The criteria to be used are sited in Public Law 101-628, Section 1216 and include:

> (a) analysis of whether the existing boundary provides for the adequate protection and preservation of the natural historic, cultural , scenic and recreational resources integral to the unit;
>
> (b) an evaluation of each parcel proposed for addition or deletion based on this analysis; and
>
> (c) an assessment of the impact of potential boundary adjustments taking into consideration the factors listed above as well as the effect of the adjustments on the local communities and surrounding areas.

USGS STUDY OF MONTEREY BAY NATIONAL MARINE SANCTUARY AND CENTRAL COAST REGION : $2.5 MILLION

I respectfully request your support for an additional $2.5 million in the FY 1996 Interior Appropriations bill for the first phase of the US Geological Survey's (USGS) coordinated effort with California's Central Coast marine community to study and map the newly designated Monterey Bay National Marine Bay Sanctuary (MBNMS) and the Central Coast region. The five year project is critical both to the economy of this region and to the protection of the U.S. Marine Sanctuaries and coastal systems, and will serve as a national model for the management of our coastal areas.

The study plan identifies needed research in the geologic environments of the Sanctuary, including sea floor mapping, pollutant and sediment transport, coastal and wetlands issues, earthquake hazards in the Monterey Bay Region and marine-science information transfer and data management.

Funding of this important study would allow USGS to augment prior studies of the Monterey Bay region and the U.S. Exclusive Economic Zone and focus future plans for wide-ranging projects to characterize geologic environments, potential geologic hazards and geologic framework in wetland, coastal and deep-ocean areas.

In addition to the costs associated with the scientific studies, a key element in fostering this collaboration is providing funding for relocation costs to USGS as well as design the infrastructure costs of a new facility.

This project will ensure the future health of the MBNMS and other sanctuaries by increasing our understanding of sanctuary ecosystems and facilitating effective implementation of evolving federal guidelines.

Thank you very much for your support. I look forward to working closely with you on these issues.

WEDNESDAY, MARCH 29, 1995.

OUTER CONTINENTAL SHELF

WITNESS

HON. PORTER J. GOSS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. REGULA. Mr. Goss.

Is Rules meeting now?

Mr. GOSS. Thank you, Mr. Chairman. I'm out of breath because, indeed, Rules is meeting and I've just left there, and it looks like we'll be meeting all day.

Mr. REGULA. We'll put your full statement in the record.

Mr. GOSS. Thank you, Mr. Chairman. You've anticipated my request. I do have a full statement that outlines what I will call business which will not be new to this committee. I believe that the chairman is well familiar with our problem of the Outer Continental Shelf question. There has been progress on that, although not as much as I would have hoped.

Harry Johnston and myself have come up with what I think is a very workable solution, so that we don't have to keep coming back to you and your committee every year asking for the moratorium on the leasing, which is outlined—these requests are outlined again, and you certainly are familiar with them—having to do with the 26 north area and south of it in the Eastern Gulf of Mexico and the 26 north and north of it in the Eastern Gulf of Mexico, with the varying situations that exist there, and how we proceed on that.

I've included this year in my statement some of the statistics of the concern that we have in Florida on the actual threat, dollar threat—and we've measured it in dollar threat; we haven't tried to measure it in quality-of-life threat, although that's clearly a big factor. We depend very heavily on tourism. We've had some problems, as you know, in Florida with a bad rap on crime. We do have crime, like every place else, but not any more so, and it has hurt our tourist industry. If we had further threats to the industry, things like some of the oil spills we've seen elsewhere in the Gulf, it would really be devastating for us.

I will point out that I'm not speaking here as an environmentalist and I'm not speaking here as a businessman. I'm speaking as Representative of all of southwest Florida. I think most of the delegation is pretty much together on this.

We have taken a lot of soundings with our people, and virtually everybody is concerned that if we are going to do something in the area of oil and gas exploration in the Eastern Gulf of Mexico, we'd better very well understand what it is and how we're going to do it before we get too far involved with it, and that is what we're asking you to help us with, is to maintain that moratorium while that process goes forward.

The second point I need to bring forward is the south Florida ecosystem restoration. This is not a burden we are trying to place solely on the Federal Government. I can assure you as a taxpayer in southwest Florida that I am a big participant already, as is any other taxpayer or property owner in southwest Florida through the water district. The State is a heavy payer in this, and we are asking the Federal Government to do its responsibility. The corporations that are involved in this and the cities that rely on the water are heavily involved. It is a joint, carefully orchestrated, carefully crafted partnership of people, and the Federal Government does have its share of responsibility and its role to play.

I think our requests in this area over the years of restoring the ecosystem are entirely reasonable, especially since part of the problem was the Federal project. You know, the Federal project was conceived with the best of intentions, but it has, like so many other projects, some unintended negative consequences which we are all now paying for to correct.

The death of Florida Bay is really at hand, and whether you care about Florida Bay or not, it is, indeed, a very valuable asset to the State of Florida, as is the whole water system in the south Everglades, the Everglades is one of a kind in our world.

The last point, Mr. Chairman, the third area, which is one that I've mentioned before, but I want to give a special notice to this year. I realize we are all working very hard to come to grips with how we find dollars and to make sure we're spending them properly, but I have no hesitation at all in asking for consideration that you keep going the Historic Preservation Programs, the grants for States in particular. This is a $32 million item, I understand. It is——

Mr. REGULA. Are you talking about—yes.

Mr. GOSS. I think we get great return on it. Florida put $28 million into this program in a matching program, and from the Feds we got $628,000, and that's a very lopsided match, but we would really like to see the program grow. There are all kinds of projects. Florida is an historic State, as virtually is every State in our Union, and we think that's a great return on the money. If for nothing else, it gives you a feeling of being a player, part of it, when you understand a little bit about where you came from, and we get an awful lot of youngsters who go through some of these areas where these monies are spent and get a sense of what they belong to and why.

So I ask in those three areas, Mr. Chairman. I appreciate your time and your indulgence, and I would like your permission to go back to the Rules Committee, if you have no questions.

Mr. REGULA. I don't. I do, but we're out of time. [Laughter.]

Mr. GOSS. Thank you, sir.

[The statement of Mr. Goss follows:]

11.55

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STATEMENT OF PORTER J. GOSS (FL-14)
BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR
29 MARCH 1995

SUMMARY OF DEPARTMENT OF INTERIOR REQUESTS

OCS

- AN ADDITIONAL ONE-YEAR MORATORIUM ON OIL AND GAS LEASING AND DRILLING SOUTH OF 26 DEGREES NORTH LATITUDE AND EAST OF 86 DEGREES WEST LONGITUDE; AND CANCELLATION AND BUYBACK OF THE 73 EXISTING LEASES IN THIS AREA.

- RENEWAL OF THE CURRENT MORATORIUM ON LEASING AND PRE-LEASING ACTIVITIES FOR LEASE SALES 137 AND 151, WHICH COVER THE EASTERN GULF OF MEXICO NORTH OF 26 DEGREES NORTH LATITUDE.

- A ONE-YEAR MORATORIUM ON DRILLING IN THE AREA NORTH OF 26 DEGREES NORTH LATITUDE PENDING THE FINDINGS OF AN ENVIRONMENTAL SCIENCES REVIEW PANEL.

SOUTH FLORIDA INITIATIVE

- FULL FUNDING FOR DOI'S SOUTH FLORIDA RESTORATION INITIATIVE, WHICH INCLUDES SOME $63.9 MILLION FOR THE OVERALL ECOSYSTEM MANAGEMENT AND RECOVERY PROGRAM.

HISTORIC PRESERVATION

- FULL FUNDING FOR THE STATE GRANTS FROM THE HISTORIC PRESERVATION FUND: $32 MILLION.

****

MR CHAIRMAN, THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU AND THE SUBCOMMITTEE TODAY TO EXPRESS THE CONCERNS OF THE FLORIDA DELEGATION OVER OUTER CONTINENTAL SHELF (OCS) OIL AND GAS ACTIVITIES IN THE EASTERN GULF OF MEXICO, TO SUPPORT THE DEPARTMENT OF THE INTERIOR'S SOUTH FLORIDA INITIATIVE, AND TO SPEAK TO THE ISSUE OF HISTORIC PRESERVATION.

I AM HEARTENED TO SEE THAT THE PRESIDENT, IN HIS FISCAL 1996 BUDGET, AGAIN SUPPORTS THE RESTRICTIONS ON OIL AND GAS ACTIVITIES IN THE REGION SOUTH OF 26 DEGREES NORTH LATITUDE AND EAST OF 86 DEGREES WEST LONGITUDE, AND THAT HE HAS ASKED FOR THE CONTINUATION OF LEASING AND PRE-LEASING MORATORIA FOR THE EASTERN GULF OF MEXICO NORTH OF 26 DEGREES NORTH LATITUDE.

I STILL BELIEVE THAT A LONG-TERM STRATEGY IS NEEDED, AND TOGETHER WITH MY FLORIDA COLLEAGUE HARRY JOHNSTON I HAVE

INTRODUCED TWO BILLS -- H.R. 72, AND H.R. 73 -- TO ADDRESS THIS NEED.

H.R. 72, WHICH WAS INTRODUCED THE FIRST WEEK IN JANUARY, PROVIDES FOR A "TIME OUT" PERIOD DURING WHICH NO NEW LEASING OR DRILLING COULD TAKE PLACE IN THE EASTERN GULF OF MEXICO. DURING THIS PERIOD, SEVERAL SCIENTIFIC STUDIES THAT HAVE BEEN SPECIFICALLY REQUESTED BY THE STATE OF FLORIDA WOULD BE COMPLETED. A JOINT FEDERAL-STATE TASK FORCE WOULD THEN REVIEW THESE STUDIES, AND (IF NECESSARY) RECOMMEND FURTHER ONES. ONCE THE JOINT TASK FORCE DETERMINES THAT AN ADEQUATE BASE OF SCIENTIFIC AND ENVIRONMENTAL DATA EXISTED, IT WOULD RECOMMEND WHAT AREAS (IF ANY) OF THE EASTERN GULF COULD SAFELY SUSTAIN OIL AND GAS EXPLORATION AND PRODUCTION.

THE BENEFITS OF THIS APPROACH ARE CLEAR: IT PROVIDES A LONG-TERM STRATEGY FOR SAFE AND ENVIRONMENTALLY SOUND DEVELOPMENT OF THE NATURAL RESOURCES OFF OF FLORIDA'S COAST. ONCE THE NECESSARY STUDIES HAVE BEEN COMPLETED, THE QUESTIONS OVER WHETHER OR NOT TO ALLOW DEVELOPMENT ON EXISTING LEASES COULD BE ANSWERED QUICKLY AND COMPREHENSIVELY, AND ANY NEW LEASE SALES WOULD BE GUIDED BY THE BEST SCIENTIFIC KNOWLEDGE AVAILABLE.

BUT IN THE MEANTIME I MUST ASK YOUR INDULGENCE AS IN PREVIOUS YEARS TO CONSIDER THE MERITS OF EXTENDING THE ONE-YEAR MORATORIA.

FLORIDIANS OPPOSE OFFSHORE OIL DRILLING BECAUSE OF THE THREAT IT PRESENTS TO THE STATE'S GREATEST NATURAL AND ECONOMIC RESOURCE: OUR COASTAL ENVIRONMENT. FLORIDA'S BEACHES, FISHERIES, AND WILDLIFE DRAW MILLIONS OF TOURISTS EACH YEAR FROM ALL OVER THE GLOBE, SUPPORTING OUR STATE'S LARGEST INDUSTRY. TOURISM SUPPORTS, DIRECTLY OR INDIRECTLY, MILLIONS OF JOBS ALL ACROSS FLORIDA, AND THE INDUSTRY GENERATES BILLIONS OF DOLLARS EVERY YEAR.

AN OIL RIG BLOWOUT AND SPILL, LIKE THE ONE THAT OCCURRED OFF LOUISIANA IN 1992, WOULD DO EXTENSIVE DAMAGE TO FLORIDA'S ECONOMIC AND ENVIRONMENTAL BASE. IN 1990 LEE COUNTY COMMISSIONED A STUDY OF THE EFFECTS AN OIL SPILL WOULD HAVE ON TOURISM IN LEE COUNTY ALONE, AND THE RESULTS ARE STAGGERING. OVER A TWO YEAR PERIOD A SPILL COULD CAUSE:

* AN OVERALL 31% DECREASE IN VISITOR VOLUME -- OR NEARLY 1 MILLION FEWER TOURISTS.

* A DIRECT REDUCTION OF $382 MILLION IN VISITOR EXPENDITURES, AND AN OVERALL LOSS OF $590 MILLION IN TOURISM-RELATED REVENUES.

* $21.9 MILLION IN LOST SALES TAX REVENUES.

* A DIRECT LOSS OF 9000 TOURISM INDUSTRY JOBS, AND 12,300 JOBS OVERALL; CAUSING NEARLY $140 MILLION LOST IN WAGES.

ALSO, THE ON-SHORE FACILITIES REQUIRED TO PROCESS THE OIL WOULD BE AN EYESORE AT BEST. MORE LIKELY, THESE FACILITIES WOULD CHANGE THE CHARACTER OF THE FLORIDA COAST, CONTRIBUTE TO THE POLLUTION OF THE ENVIRONMENT, AND POSE SERIOUS PROBLEMS FOR FLORIDA'S TOURISM AND REAL ESTATE INDUSTRIES.

THE FLORIDA COASTLINE BOASTS SOME OF THE RICHEST ESTUARINE AREAS IN THE WORLD. THESE BRACKISH WATERS, WITH THEIR MANGROVE FORESTS AND SEAGRASS BEDS PROVIDE AN IRREPLACEABLE LINK IN THE LIFE CYCLE OF MANY SPECIES, BOTH MARINE AND TERRESTRIAL. FLORIDA'S COMMERCIAL FISHING INDUSTRY RELIES ON THESE ESTUARIES BECAUSE THEY SUPPORT THE NURSERIES FOR MOST COMMERCIALLY HARVESTED FISH. PERHAPS THE MOST ENVIRONMENTALLY DELICATE IN THE GULF, ESTUARIES COULD BE DAMAGED BEYOND REPAIR BY A RELATIVELY SMALL OIL SPILL.

THANK YOU FOR ALLOWING ME TO SPEAK TO AN ISSUE THAT IS OF GREAT IMPORTANCE TO SOUTHWEST FLORIDIANS. I APPRECIATE THIS SUBCOMMITTEE'S PREVIOUS ATTENTION TO FLORIDA OCS ISSUES, AND I HOPE THIS YEARS REQUEST CAN BE CONSIDERED FAVORABLY.

ANOTHER ISSUE I WOULD LIKE TO ADDRESS THIS YEAR IS THE FISCAL YEAR 1996 DOI BUDGET REQUEST FOR THE SOUTH FLORIDA ECOSYSTEM RESTORATION INITIATIVE. THIS ENDEAVOR INCLUDES RESTORATION EFFORTS IN THE EVERGLADES, BIG CYPRESS, AND FLORIDA BAY AREAS, AS WELL AS IMPROVEMENT OF THE FRESH WATER FLOW THROUGHOUT THE SOUTHERN PART OF THE STATE.

AS YOU ARE AWARE, SOUTHERN FLORIDA HAS UNDERGONE EXTENSIVE DEVELOPMENT OVER THE LAST 80 YEARS, PARTICULARLY THE DRAINING OF MARSHLANDS TO ACCOMMODATE AGRICULTURAL AND URBAN LAND USES, AND THE DEVELOPMENT OF A MASSIVE FLOOD CONTROL PROJECT THAT CONSTRUCTED NEARLY 800 MILES OF LEVEES AND 500 MILES OF CANALS. SEVERE ECOLOGICAL PROBLEMS HAVE ALSO BEEN IMPOSED ON THE FRAGILE ECOSYSTEM BY RAPID POPULATION GROWTH AND ITS EFFECT UPON FRESH WATER LEVELS AND QUALITY.

LAST YEAR THE DEPARTMENT OF INTERIOR MADE SIGNIFICANT STRIDES IN ITS EFFORTS TO FIX WHAT HAS BEEN "BROKEN" BY COORDINATING THE EFFORTS OF FIVE AGENCIES WITHIN THE DEPARTMENT, INCLUDING: THE U.S. FISH AND WILDLIFE SERVICE, THE NATIONAL PARK SERVICE, THE U.S. GEOLOGICAL SERVICE, THE NATIONAL BIOLOGICAL SURVEY, AND THE BUREAU OF INDIAN AFFAIRS. THIS YEAR INTERIOR HOPES TO BUILD OF THESE EFFORTS, AND I SUPPORT THE FULL REQUEST FOR $63.9 MILLION FOR THIS EFFORT.

FINALLY, I WANT TO BRIEFLY MENTION THE IMPORTANCE OF HISTORIC PRESERVATION. OUR NATIONAL HERITAGE DESERVES PROTECTION AND PRESERVATION FOR FUTURE GENERATIONS; IN ADDITION, PRESERVATION IS IMPORTANT TO LOCAL AND STATE ECONOMIES.

THE STATE OF FLORIDA HAS A STRONG PRESERVATION PROGRAM THAT CONTRIBUTES TO NEIGHBORHOOD REVITALIZATION, PROVIDES RENTAL HOUSING UNITS, AND ENHANCES THE TOURISM INDUSTRY. FLORIDA'S PARTICIPATION IN THE JOINT FEDERAL/STATE HISTORIC PRESERVATION PROGRAM DEMONSTRATES ITS COMMITMENT TO PRESERVATION EFFORTS: LAST YEAR FLORIDA MATCHED THE FEDERAL GRANT OF $672,140 WITH $28 MILLION IN STATE AND PRIVATE FUNDS.

I UNDERSTAND THE IMPORTANCE OF MAKING ENDS MEET AND ELIMINATING THE BUDGET DEFICIT. I REALIZE THAT WORTHY PROGRAMS WILL HAVE TO TAKE SOME CUTS -- BUT OUT OF THE TOTAL HISTORIC PRESERVATION FUNDING, THE STATE GRANTS ARE PERHAPS THE MOST IMPORTANT AND THE MOST EFFECTIVE.

WEDNESDAY, MARCH 29, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

HON. PHILIP M. CRANE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. REGULA. Mr. Crane.

Mr. CRANE. Thank you, Mr. Chairman. And, knowing your time constraints, I ask unanimous consent that I might have my printed statement included in the record.

I'm here to testify, as you anticipated, with regard to my objections to Federal funding of the arts, and, specifically, the NEA. I've said this many times in our debates on the floor, but it bears repeating, that this issue was raised at the Constitutional Convention in Philadelphia. Charles Pinckney from South Carolina recommended that we fund literature, arts, and humanities. That was overwhelmingly rejected by all of those who people who crafted that precious document as being beyond the purview of legitimate functions of the National Government. And that was basically our history, as you know, except for the Depression Years when the New Deal rewarded unemployed painters for painting in the form of welfare payments, and then that was terminated in World War II. Then during the guns-and-butter era, when—and I hesitate to use the expression "Pavlovian-minded"—Members of Congress saw fit to allocate money for every spending project that came down the pike.

We're faced right now with the prospect of a $5 trillion national debt shortly after the end of this year, and under the optimistic scenario we're going to add another trillion to that by the end of the century. That's the optimistic scenario, barring Republican intervention here to save the taxpayer money.

But that Pavlovian expression I heard used in debate, as I recall, on the floor or somewhere—maybe it was in committee by one of your distinguished colleagues on the minority side, and I hope you can convey it to him—because I thought that was kind of fitting, but he had it in reverse.

Let me give you some other objections, too, though. One of these has to do with censorship of the arts. You inevitably are going to have censorship when you have Government involvement in the arts. Now a part of that was condemnation of Members of Congress over criticism, you recall, in times past over some of the monies that were allocated for projects by the NEA that offended the sensibilities of one and all. And Congress certainly has that authority and responsibility, but that's not the only censorship. The bureaucrats in the NEA clip three-fourths of their applicants out of the process when they allocate——

Mr. REGULA. Yes.

Mr. CRANE [continuing]. Their resources to the 25 percent that are rewarded thus.

Mr. REGULA. Right.

Mr. CRANE. This is a big benefit to those who get the imprimatur, however, of the NEA. And keep in mind that we're not talking about a discontinuation of the funding of the arts because last year

$9.3 billion—billion—from the private sector was allocated for the arts in contrast to their $167 million.

There's another concern I have, too, though, and that is their bureaucratic overhead. The fact of the matter is their bureaucratic overhead is approximately $20 million. Now that's roughly the equivalent of what almost half of the States of the Union get in grants. It's a little extravagant, it seems to me, but it reinforces the good old boy network that exists, clearly, when you see how these funds are being allocated.

Washington, D.C., obviously, is the art capital of the world, presumably, if you look at the percentage of funds going to Washington, D.C. Because Washington, D.C., with fewer people than your congressional district or mine, Washington, D.C., gets more than double what the State of Ohio gets and it gets double what the State of Illinois gets. Washington, D.C., gets the equivalent of what almost a dozen States get combined. And I must say I admire the art talents in this town, you can see it in the graffiti once in a while. But the fact of the matter is if you take D.C., New York, and California, that's almost 40 percent of their total budget.

Mr. REGULA. Right.

Mr. CRANE. And it can't be coincidence.

So let me conclude, Mr. Chairman, by simply saying that, aside from my constitutional arguments, I think at this point in time, when we're looking at this awesome, escalating debt, here's a place to make a modest economy that's long overdue, and it's been irresponsible allocation—

Mr. REGULA. Well, as you know, it's at this point an authorizing committee responsibility. We're waiting to see whether they do anything because we don't really have authority to appropriate unless they authorize.

Mr. CRANE. To be sure, Mr. Chairman, but, on the other hand, they can authorize and you don't have to spend it.

Mr. REGULA. Well, we'll see what they do.

Mr. CRANE. Thank you, Mr. Chairman.

Mr. REGULA. Thank you.

[The statement of Mr. Crane follows:]

THE HONORABLE PHILIP M. CRANE

WRITTEN COMMENTS TO

THE HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON INTERIOR

MARCH 29, 1995

Mr. Chairman, I appreciate this opportunity to testify before the Interior Subcommittee regarding my objections to federal funding for the National Endowment for the Arts (NEA) through appropriations for the Department of Interior and related agencies.

As you know, I have been a long time opponent of federal funding for the NEA, and I would first like to explain my objections to federal funding of the arts.

My primary objection to the NEA is that I do not believe that it is a constitutionally defensible responsibility of the federal government to fund the arts. Although I am a former professor of American history, I do not suggest that my interpretation of the wishes of our Founding Fathers is omniscient. Instead, I rely on the records of the Constitutional Convention in 1787.

During the meeting which gave birth to our Constitution, the Delegates considered a proposal by Charles Pinckney of South Carolina to involve the national government in funding the arts and sciences in America. However, the Delegates rejected the proposal. A few years after the Convention, Representative John Page of Virginia sustained this decision by the Delegates when he warned: "Congress might, like many royal benefactors, misplace their munificence... and neglect a much greater genius of another."

Our federal government maintained this position until the Great Depression when artists were paid to paint. Not until 1965, 178 years after the Constitutional Convention, when Congress and President Johnson founded the NEA, did the federal government establish itself as the most important art benefactor in America.

Supporters of the NEA have alleged that the end of federal funding for the arts will have a severe, negative impact on the arts community in America. I strongly disagree with this assertion for a couple of reasons. First, the private sector in recent years has contributed better than $9 billion per annum to the arts and humanities. Such generosity dwarfs the contribution by the federal government of roughly $170 million each year. Especially considering the fact that approximately $20 million each year goes to pay NEA administrative costs and never gets to artists. Secondly, some of America's finest artists thrived during the 178 years before the NEA. The careers of America's greatest authors such as Mark Twain, F. Scott Fitzgerald, and Ernest Hemingway developed without any assistance from the federal government.

Today, the federal government is the most powerful art critic in America. The agency has gone beyond its role of assisting the arts to become the "Federal Ministry of Kultur." In fact, in some cases, the cost of obtaining a federal grant is more than the grant itself -- it is the imprimatur of the NEA the applicants seek.

According to NEA records, three of every four grant applicants are rejected by the agency. As the grants are used as "seed" money to attract the attention of private arts benefactors, the NEA has elevated the career of one artist at the expense of three other artists. While I strenuously object to a federal agency determining what is "proper" art, such an arrangement should be anathema to artists.

The NEA has also become increasingly parochial in its giving. Although the NEA claims to benefit all Americans, the states of New York and California as well as the District of Columbia, the top three recipients of NEA grants, receive nearly 40% of the NEA grant funds. The District of Columbia, which is smaller than my Congressional district, receives almost twice the money than my state of Illinois receives. In fact, more taxpayer money went to D.C. than to the states of Arkansas, Idaho, Kansas, Mississippi, Nevada, North Dakota, Oklahoma, South Carolina, South Dakota, and Wyoming combined.

Mr. Chairman, I come before your Subcommittee today as we in Congress are faced with a federal debt of nearly $5 trillion and annual federal deficits of approximately $250 billion. In such times, I believe that funding the NEA is not only unwise, but irresponsible. Accordingly, I would urge this Subcommittee to completely eliminate federal funding for the National Endowment for the Arts.

Again, I thank you for your consideration and the opportunity to address the Subcommittee.

WEDNESDAY, MARCH 29, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

HON. LOUISE M. SLAUGHTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. REGULA. Louise?

Mrs. SLAUGHTER. Thank you. How are you?

Well, Mr. Chairman, first, I want to tell you——

Mr. REGULA. I'm sure you have a somewhat different story. [Laughter.]

Mrs. SLAUGHTER. Just a bit. But I want to make friends right this second and tell you I'm one of the few non-Ohioans who can pronounce Cuyohoga. Does that help?

Mr. REGULA. That helps.

[Laughter.]

Mrs. SLAUGHTER. Okay. No, I——

Mr. REGULA. We'll even put your statement in the record.

Mrs. SLAUGHTER. I was just looking at Mr. Crane's statement, and Mr. Pinckney said to fund arts and sciences. Now if we paid attention to that, we'd be in a heck of a bind, wouldn't we? Just think about it: no science in the United States, let's face it.

I'm here as the Chair of the arts caucus, and I will run through this and put the whole statement in the record. But, you know, every year we have this debate. We've got down to $165 million, and what does that bring back to the Federal Government? We spend $165 million and we get $3.4 billion back in taxes. I can't think of a single expenditure we make in the Congress of the United States that brings that back. The arts put over $36 billion a year into the economy, and so just on the economic face of it alone, it is a bargain.

But there are other things, I think, that are terribly important, and one of them is what it does for children. And I've seen this with my own eyes, and we've talked about this before. Children who are troubled, children who have been damaged in their young ages, one of the best things that we can do for them is present them with an arts programs. For one thing, it helps them to open up their emotions, and if they're young enough, they can heal themselves.

But it goes much further than sort of the bleeding heart notion. We have found that the SAT tests say that every student who has had four years of art—if I can find this quote. Here it is. This is astonishing. "In 1993, the College Entrance Examination Board reported that students who studied the arts more than four years scored 53 points higher on the verbal portion of the exam and 37 points higher on the math portion of the exam than students with no art." Now that's pretty impressive, I think.

In addition, we know from studies that have been taking place all over the country that children who are involved in arts programs are better students. The artistic side of the brain, where they're taught discipline for art, goes over onto the other side. They're better students. Their scores go up. We see less of an absenteeism rate. We see less of a dropout rate. I tell you, as far as I'm concerned, if we can children who learn to create, not to destroy, who can raise their verbal and math skills, who can have some self-esteem, who can stay in school and be productive citizens, for $165 million, we don't spend money any better than that in the United States of America.

It's critically important, too, and I don't want to take up a lot of your time because I know you and I have discussed this many times.

Mr. REGULA. Your real message has to go to the authorizing committee.

Mrs. SLAUGHTER. And it will, but I know you're terribly important here, and I'm not about to overlook that. I understand that you play a very important role here. And I'm also speaking today for the Endowment on Humanities and museums.

But let me read a quote: "Art remains a living record of civilization society that everyone in the country deserves to experience and treasure." We know that. When archaeologists dig up an old society, the only thing we know to judge them by is the art they've left behind. That tells us that they were intelligent and advanced.

Mr. REGULA. There's one other thing; it's their money.

Mrs. SLAUGHTER. Who's money?

Mr. REGULA. When they dig up—when they do a dig.

Mrs. SLAUGHTER. Not necessarily .

Mr. REGULA. The money usually tells what was important.

Mrs. SLAUGHTER. Right. Well, I don't know how you can tell how they spent it.

Mr. REGULA. No, you can't do that.

Mrs. SLAUGHTER. Right? [Laughter.]

Well, let me say this: John Ruskin said that, "Great nations write their autobiographies in three manuscripts: the book of their deeds, the book of their words, and the book of their art." And the United States, the greatest civilization on this planet, can't ignore one-third of what great civilizations leave behind.

Mr. REGULA. Well, you're a powerful advocate.

Mrs. SLAUGHTER. I believe in this with all my heart. I can tell you, I've seen with my own eyes what it's done for children.

Mr. REGULA. I hope you're as persuasive with the authorizing committee.

Mrs. SLAUGHTER. I'm going to do it. I'm going to do it, but I've been to school on the Lower East Side where the Girshwin brothers and Paul Muney and Edward G. Robinson all graduated. The second language in that school right now has been—the only things the kids all have in common was art. It's clean as a whistle. They had no absentee rate. Their scores were enormously high, and the principals there all attributed it to the fact that they had that art in common.

Thank you, sir.

Mr. REGULA. Thank you.

[The statement of Mrs. Slaughter follows:]

Statement of
CONGRESSWOMAN LOUISE M. SLAUGHTER
on the
FISCAL YEAR 1996 BUDGETS OF THE FEDERAL ARTS AGENCIES
before the
INTERIOR SUBCOMMITTEE
COMMITTEE ON APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
March 29, 1995

Mr. Chairman, and Members of the Subcommittee, I am honored to appear before you today as Chair of the Congressional Arts Caucus to testify on the Fiscal Year (FY) 1996 budget of our nation's federal arts agencies, namely, the National Endowment for the Arts (NEA) and Humanities and the Institute of Museum Services.

As Chair of the Arts Caucus, I have watched in amazement year after year, as the pittance our nation's federal arts agencies receive from the federal budget is consistently denigrated, incorrectly characterized, and almost always cut. And now the future of these vital cultural institutions is imminently threatened.

In recent months, I have heard many of my colleagues discuss the importance of deficit reduction and more specifically, fiscal responsibility. While I most certainly agree with eliminating unnecessary federal spending, funding for the arts, and art agencies like the National Endowment for the Arts, make up a mere .02% of the national budget, and for each $1 the NEA spends, $11 **of economic activity results!!**

If the issue at hand is truly fiscal responsibility, how can we not afford to maintain federal funding of the arts? How can we say these agencies fall into the category of unnecessary federal spending, when the arts are an industry that support jobs, provide personal income, and generate significant revenue to the local, state, and federal government. The non-profit arts industry alone contributes $36.8 billion to the U.S. economy and supports 1.3 million jobs.

As arts groups have proliferated, they have had an enormous and positive economic impact on the area in which they have developed. Art revenues are seen in business, tourism, reversed urban decay, and in the revitalization of struggling neighborhoods. If we wipe these agencies off of the map, the potential achievements of a great many artists will go with it -- jeopardizing one of the most profitable industries in our nation.

The arts are very often a city's best economic asset, and in many cases the arts and cultural institutions are among the only job-creating industries left. In my district of Rochester, NY, the National Association of Local Arts Agencies found that non-profit arts organizations spent approximately $124 Million annually and supported more than 4,000 full-time jobs.

The annual audience for non-profit theaters serve an audience that has grown from 5 million in 1965 to over 20 million in 1992. More Americans attend art events annually than they attend professional sports events. A 1992 poll sponsored by the American Council on the Arts showed 60% of the American people favored federal support of the arts. Further reductions in funding for the endowments would have adverse implications on both constituents and the cultural agencies in our districts.

Mr. Chairman, we cannot afford to have the potential talent of our children lying in waste. Discussion about our national priorities begin and end with children -- they are our future, our legacy, and our greatest resource. What the arts can do in the lives of our nations children cannot be underestimated!

The arts have the power to change a child's life. Children that create do not destroy. Access to art assists in keeping kids in school and off the streets. Art has a positive impact on a child, it enriches their lives and empowers them with a strong sense of self-worth. The NEA stresses that arts education may be the only way to reach at-risk children, deter them from violence, and increase their ability in every academic area giving them a sense of identity and discipline. Children who have art in education are better students with stronger analytical skills and higher esteem.

The NEA's Arts in Education Program places 14,500 artists in schools in every state to work with children. Arts education is integral to school curriculum as it affects virtually all areas of learning. Children who learn through the arts improve in every academic area, have better attendance, and have increased motivation to learn.

In 1993 the College Entrance Examination Board reported that students who studied the arts more than four years scored fifty-three points higher on the verbal portion of the exam and thirty-seven points higher on the math portion of the exam than students with no course work or experience in the arts. This alone makes it essential for our federal arts agencies to be able to continue to provide support to our nation's children.

I commend President Clinton for reconfirming his commitment to the endowments in his FY 96 budget recommendation to fund these agencies at $172 million for the NEA, $182.8 million for the NEH and $1.1 million for the IMS.

Mr. Chairman, we must recognize that these institutions provide equal access and opportunity to the people of our nation, many of whom would otherwise be deprived from experiencing the arts in American society.

The arts serve as a medium of documentation, the essence of the American experience is recorded through art. Art remains a living record of civilization and society that everyone in our country deserves to experience and treasure. John Ruskin said, great nations write their autobiographies in three mauscripts- the book of their deeds, the book of their words, and the book of their art.

Mr. REGULA. We'll suspend until one o'clock.

WEDNESDAY, MARCH 29, 1995.

LWCF—APPALACHIAN TRAIL AND HISTORIC PRESERVATION TRUST FUND

WITNESS

HON. NANCY L. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. REGULA. There's Nancy, ready to go. Okay. We'll put your statement in the record, and you will summarize and tell us all the good reasons why we should do whatever you want us to do.

Mrs. JOHNSON of Connecticut. Well, first of all, it's a pleasure to be here this afternoon. This is my 13th consecutive appearance before this fine committee in support of two projects that I think are still worthy of your support: the Appalachian Trail and the Historic Preservation Trust Fund.

The Appalachian Trail stretches from Maine to Georgia and cuts through some of the very——

Mr. REGULA. You're preaching to the choir on that one.

Mrs. JOHNSON of Connecticut. What's that?

Mr. REGULA. I say you're preaching to the choir on that one.

Mrs. JOHNSON of Connecticut. Okay. Well, the only thing you need to know about the Appalachian Trail in my district is that land values, after plummeting, are now beginning to climb again. We don't have very many parcels to purchase to complete the trail, and if we can get the funding this year, it will make a very big difference in being able to complete the trail.

Mr. REGULA. Well, I'd like to finish it.

Mrs. JOHNSON of Connecticut. Great.

Then I also continue to support the Historic Preservation Trust Fund. My part of the country, as in your part of the country, has a lot of old buildings. They are of value. They can be reused, but they do need help to be reused. I know you're well familiar with that program, and I won't take more of your time, but I would like to submit my testimony for the record.

Mr. REGULA. Without objection.

Mrs. JOHNSON of Connecticut. I also would like to submit the testimony of my friend and colleague, Christopher Shays, who's on the floor managing some of the time on the term limits issue.

Mr. REGULA. Without objection, it will also be entered.

Mrs. JOHNSON of Connecticut. Yes, in support of the Great Meadows Salt Marsh in Stratford, Connecticut.

Mr. REGULA. Yes, these are all good things, as you know.

Mrs. JOHNSON of Connecticut. Right.

Mr. REGULA. It's just a matter of making the dollars stretch.

Mrs. JOHNSON of Connecticut. Right. You're going to have to look at what needs to be done now, what can be done later, and how we will manage it.

Mr. REGULA. Okay, well, thanks for coming over.

Mrs. JOHNSON of Connecticut. Thank you.

[The statement of Mrs. Johnson of Connecticut follows:]

NANCY L. JOHNSON
6TH DISTRICT, CONNECTICUT

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TESTIMONY OF

THE HONORABLE NANCY L. JOHNSON OF CONNECTICUT

before the

APPROPRIATIONS SUBCOMMITTEE ON INTERIOR

*****

March 29, 1995

PRINTED ON RECYCLED PAPER

Statement by Rep. Nancy L. Johnson in support of Appalachian Trail and Historic Preservation Trust Fund - March 29, 1995

Good afternoon, Mr. Chairman and colleagues. It is a special pleasure to be here today, in my thirteenth consecutive appearance for two projects still worthy of your support: the Appalachian Trail and the Historic Preservation Trust Fund.

As you know, the Appalachian Trail stretches from Maine to Georgia and cuts through some of the prettiest portions of my northwest Connecticut district. Buttressed by thousands of volunteers who care for the Trail, it is the type of public-private partnership that deserves federal support.

This year, the National Park Service and the U.S. Forest Service seek a total of $8.4 million for the Trail program, a modest though meaningful sum that, if history is any guide, will be obligated almost immediately after the start of the fiscal year. With land prices heading in only one direction, I trust you will agree that keeping the Trail project alive despite real budget pressures makes economic sense.

With completion of the Trail within our reach, I urge the Committee to look favorably on the requested funding. The thousands of people who enjoy the Trail every day will be forever in your debt.

I also wish to express my continued support for the Historic Preservation Trust Fund. Coming from a part of the country dotted with historic residential and commercial buildings, I appreciate the important role of the Trust Fund in preserving our heritage.

Over my years of public service, I have worked closely with the Park Service, state officials, and private developers in making this program the success that it is today. I hope that you will agree with my assessment and approve the relatively small sum of $43 million requested for the Trust Fund. Though this translates to only $591,000 for Connecticut, the six- or seven-to-one leveraging with state, local, and private funds is key to many projects in my area.

I appreciate the Committee's attention to these two successful programs, as well as the opportunity to share my support for them once again.

[The statement of Mr. Shays follows:]

Testimony of
Congressman Christopher Shays (CT-4)

INTERIOR APPROPRIATIONS SUBCOMMITTEE

March 29, 1995

Chairman Regula, Congressman Yates and members of the Subcommittee:

Thank you for providing me with this opportunity to testify before your subcommittee to discuss with you the preservation of a precious natural resource, the Great Meadows Salt Marsh, on Long Island Sound in Stratford, Connecticut.

The Great Meadows Salt Marsh is the largest unditched high salt marsh in Connecticut, and is habitat to a wonderfully diverse range of wildlife. Included among the marsh's inhabitants are species deemed by the federal government to be threatened, such as the piping plover. It serves as a feeding area for the endangered bald eagle, and its tidal flats and waters both feed and breed many species of finned fish. In addition, the marsh is a prime birdwatching site, attracting ornithologists and nature lovers from afar to see the more than 270 species of birds residing there.

The majority of acres in the marsh have been owned since 1951 by a small company, the Stratford Development Company (SDC), which has been contesting plans for development of the property with local environmental groups and thousands of the groups' members since 1969.

In 1988, SDC and the United States Fish and Wildlife Service (FWS) began discussing the idea of dividing the property and attempting to obtain federal funds to add the most ecologically critical portions of the marsh to the Stewart B. McKinney National Wildlife Refuge, named in memory of the much admired Congressman I succeeded. Preservation of the most sensitive parts of the property would then presumably facilitate the agreement of local environmentalists and state and federal agencies to develop the less biologically important parts of the property -- to more quickly provide desperately needed economic stimulation the impoverished Bridgeport area.

In 1990, Congress authorized the FWS to enter into negotiations with SDC. No funding was earmarked for this purpose, however, and it is understood that the monies would come from the Land and Water Conservation Funds, the federal fund for refuge and park acquisition financed by offshore oil leases.

The FWS, with the assistance of The Nature Conservancy, negotiated with SDC for four successive options, which after corrections due to ownership research and surveys were made, covered 453.9 acres for $13.1 million.

Congresswoman Rosa DeLauro and I, and the constituents we represent, greatly appreciate the total of $5 million that this committee has appropriated the past two years for this project. This appropriation was reduced to a total of $3.6 million by the Conference Committee, and then combined with $627,000 from the U.S. Migratory Bird Commission to acquire 391.3 acres, including all of the tidal wetlands owned by SDC and important upland parcels, which include the largest pond on the property and host one of Connecticut's largest concentrations of state endangered birds.

Congresswoman DeLauro and I are here today to advocate allocating $4.2 million to acquire 27.2 additional acres in the Stratford Great Meadows. These parts of the property are important habitat in themselves for various species of migrating shore birds. These are essential for providing adequate access to the acres already preserved for educational and recreational use and for ensuring a proper buffer for the most sensitive parts of the Meadows.

Due to its location next to the City of Bridgeport, in a very densely populated county, proper access to the Great Meadows is an integral part of the refuge concept here. This site has been regarded as one of the best coastal birding habitats in the New York/Southern New England region since the beginning of this century. It was trespassed on extensively when it was in private ownership, and it is anticipated that it will be in great demand by school groups from nearby cities and towns.

In a time of concern over agency operations budgets, I am pleased to acknowledge that The Nature Conservancy Connecticut Chapter has raised more than $200,000 toward a goal of $300,000, which will be used to create an endowment fund, interest from which will help the FWS manage this addition to the McKinney Refuge.

With more than 14.5 million people living within Long Island Sound's drainage basin, there are tremendous burdens on this estuary. In 1988, the Sound was designated an "estuary of national significance" and as such the EPA and the states of Connecticut and New York formed a management conference to formulate a Comprehensive Conservation and Management Plan (CCMP), which was completed in March and signed by Governors Weicker and Cuomo, and EPA Administrator Carol Browner in September.

The CCMP identified the most pressing problem as low dissolved oxygen or "hypoxia." As non-point source pollution is a primary cause of this condition, the CCMP identified non-point source pollution control as a priority project. If we preserve this marsh's integrity as a natural pollution filter for the Sound, we are achieving this objective.

Mr. Chairman, we are proud of the years of hard work and commitment contributed by citizens and the state and federal governments, in devotion to preserving the Stewart B. McKinney National Wildlife Refuge. We are also deeply appreciative of the support your subcommittee has given in the past to ensuring the Great Meadows Salt Marsh is a part of this Refuge. We urge you to look favorably on our request for continued support.

Thank you for your consideration of our testimony.

WEDNESDAY, MARCH 29, 1995.

STEWART B. McKINNEY NWR

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

HON. ROSA L. DeLAURO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. REGULA. Rosa. We're happy to have you. We'll put your statement in the record, and we'll appreciate it if you'll summarize for us.

Ms. DELAURO. Sure. I'll be very brief, Mr. Chairman. I appreciate the opportunity to be here this afternoon and to be able to testify.

I understand the testimony of my colleague, Chris Shays, has been submitted for the record.

Mr. REGULA. Right.

Ms. DELAURO. We have both testified on this issue for the last several years. It's about an issue of tremendous importance to our districts and to the State.

I think you're aware, Mr. Chairman, of the long history of our efforts to preserve the Great Meadows Salt Marsh in Stratford, Connecticut. The effort, quite frankly, is a legacy of our late colleague and our friend, Stewart McKinney, who did a whole lot really to protect the irreplaceable wildlife habitats along the Long Island Sound.

The acquisition of the Great Meadows Marsh is the final and the critical step that's necessary for completing the Stewart McKinney Wildlife Refuge, which would be the only National Wildlife Refuge in the State of Connecticut. So, with the addition of the Great Meadows Marsh and its mix of habitats, the refuge will be of sufficient size and ecological variety and complexity to be really defensible as a great preserve for generations to come.

It's been a two-decade-long effort to preserve the marsh, culminated in 1993 in a congressionally-authorized agreement for the U.S. Fish and Wildlife Service to purchase the marsh from the property owners. The Congress has appropriated $3.6 million over the past two years for purchase of the land, and we have now purchased 391 of the 454 acres that make up the marsh.

So, first of all, I'm deeply grateful for the help in the past and for support of the efforts. This year we are urging the subcommittee to appropriate $4.2 million from the Land and the Water Conservation Fund to purchase an especially sensitive 27.2-acre parcel. The project is the priority of the Fish and Wildlife Service in region 5, which includes the 13 eastern States. And it is one of the only—it is one of three projects in the region for which the Nature Conservancy is advocating funding.

We want to ask your assistance again this year, Mr. Chairman, to preserve the marsh and, with it, the dream of that Stewart McKinney had for this wildlife refuge.

Let me also—that concludes my comments on the wildlife refuge. I would also just take the opportunity for a second to urge the subcommittee's support for the National Endowment for the Arts, and with that regard what I will do is to submit a statement to you in support of the cultural and economic benefits of the NEA.

Thanks very, very much for the opportunity to come before you today.

Mr. REGULA. Thank you. And let me suggest that you talk to the authorizers of the NEA.

Ms. DELAURO. I will.

Mr. REGULA. As you know, it has to be authorized. NEA, NEH, and IMS, all three need to be reauthorized.

Ms. DELAURO. Terrific. Thank you very, very much.

Mr. REGULA. Thank you.

[The statement of Ms. DeLauro follows:]

TESTIMONY OF THE HON. ROSA L. DeLAURO BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON THE INTERIOR

March 29, 1995

Chairman Regula, Ranking Member Yates, and members of the Committee, I appreciate the opportunity to testify, along with my colleage Congressman Chris Shays, about an issue of tremendous importance to our districts and our state.

Mr. Chairman, I'm sure you are aware of the long history of our efforts to preserve the Great Meadows Salt Marsh in Stratford, Connecticut. This effort is a legacy of our late colleague and friend, Steward B. McKinney, who did so much to protect the irreplaceable wildlife habitats along Long Island Sound. Indeed, acquisition of the Great Meadows Marsh is the final and critical step necessary for completing the Stewart B. McKinney National Wildlife Refuge, which is the only national wildlife refuge in Connecticut. With the addition of the Great Meadows Marsh and its mix of habitats, the McKinney refuge will be of sufficient size and ecological variety and complexity to become a defensible preserve for generations to come.

A two-decade long effort to preserve the Great Meadows Marsh culminated in 1993 in a Congressionally authorized agreement for the U.S. Fish and Wildlife Service to purchase the marsh from the property owner. The Congress has appropriated $3.6 million over the past two years for purchase of this land, and we have now purchased 391 of the 454 acres that make up the Great Meadows Marsh. I am deeply grateful for your support in these efforts.

This year, we urge this Subcommittee to appropriate $4.2 million from the Land and Water Conservation Fund to purchase an especially sensitive 27.2 acre parcel. This project is a priority of the Fish and Wildlife Service in Region 5, which includes 13 Eastern states, and it is one of only three projects in this region for which the Nature Conservancy is advocating funding.

Mr. Chairman, we need your assistance this year to preserve the Great Meadows Marsh, and with it the vision and dream embodied in the Stewart B. McKinney Wildlife Refuge.

THE NEA

I would also like to take this opportunity to discuss another topic that is close to my heart -- the National Endowment for the Arts.

It is my understanding that the subcommittee will not make FY 1996 appropriations for the NEA until it is reauthorized. I am here to encourage the subcommittee to move forward and continue funding the NEA regardless of reauthorization.

The NEA contributes both culturally and economically to communities across the country. The NEA supports museums, orchestras, theatres, dance companies, community arts centers, and other presenters of the performing, visual, and literary arts that enrich the lives of people everywhere. These arts institutions provide the critical resources necessary for cultural education, growth, and development. In addition, these institutions spur crucial economic activity in their communities when patrons go out to dinner, when artists purchase supplies, and when arts employees spend their earnings. All of these activities contribute positively to local economic activity.

It is important to point out that one of the primary missions of the NEA is to bring the arts to people who would not otherwise be exposed to them. For example, the Dixwell Creative Arts Center in New Haven, Connecticut, received funding from the NEA last year. The Dixwell Center serves a very poor inner-city neighborhood and provides children with the opportunity to learn about the visual and performing arts, and to experiment with and develop their own talents and interests. This federal money is being spent to expose kids who probably would not have any other opportunity to explore and learn about the arts.

The Dixwell Creative Arts Center is only one example of NEA funding that is well-spent, and it is a shining example of why it is important that funding for NEA programs continue. The NEA is critical not only to the education and entertainment of all Americans, but also to the continued economic vitality of our cities and towns. I strongly urge the subcommittee to continue funding the NEA.

I thank all of you for the opportunity to come before you today, and I look forward to working with you on these important issues.

WEDNESDAY, MARCH 29, 1995.

FOREST SERVICE TIMBER SALES

WITNESS

HON. WALLY HERGER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REGULA. Yes, Wally, let's go while you're here. We want to keep moving.

Mr. HERGER. Good.

Mr. REGULA. Okay. We'll put your full statement in the record. Go ahead. Please summarize for us.

Mr. HERGER. Thank you, Mr. Chairman, for this opportunity to testify before your subcommittee in support of projects within the Forest Service which are important to our northern California district.

The Forest Service timber sales in region 5 have declined sharply in recent years. Predictably, forest health and economic vitality in the region have also dwindled in lock-step with this trend. Declining forest health contributed significantly to the wild fires of 1994.

Mr. REGULA. Tell me what do you mean by declining forest health? What's happening? I hear—I've heard this term, and what is happening and why is it happening?

Mr. HERGER. What is happening? We're having right now approximately five—first of all, our Sierras in northern California are very different than, say, Oregon and Washington. As you come south, we don't get as much rainfall.

Mr. REGULA. Right.

Mr. HERGER. Therefore, when we get our droughts, as we've had now—we know—we seem to be in a state of extremes, either too much water or not enough water. We're having too much right now. Actually, in the mountains it's great because we're getting great snowfall, but seven of the last nine years have been drought years. What that means is that—and it's somewhat complicated. We're looking forward to showing a lot of this to you when you come out here in a little later on this next month, Mr. Chairman, but what happens is that over 80 years, because of well-meaning people, Smokey the Bear, we haven't allowed any fires, which have been really have been positive things under controlled management, but what's happened is that we have much thicker forests than we've ever had, say, prior to 80 years ago—fires that would come through, take out the new trees that would be in the underbrush. The larger trees would normally not burn. Now we have very thick forests there, and that compounds the fact in northern California where we have droughts in California. Again, as you come back, we don't have that rainfall.

So what has happened, during these periods of seven out of nine years of drought, we have these trees—there's more trees competing for the same amount of moisture. So now we have even more dying trees out there. And, as you will see, we have forests that have 70 percent of these trees that are dead and dying over a period of seven years.

Mr. REGULA. For lack of moisture?

Mr. HERGER. From lack of moisture. But it's compounded. The natural process of the forest, we have bark beetles that will come in, you know, normally. This is part of Nature, but these bark beetles will move in the dead trees. So you have all these hosts to these bark beetles. Now these bark beetles, when they finish eating a one-time live tree, now dead tree, they're looking for something more to eat. So it even compounds the problem because they are now moving out into healthy trees, what would normally be healthy trees, and because of not enough moisture, the sap which would normally drive them out—there's so many of them. We're not only losing the good trees.

So we talk about forest health. If we could go in and try to restore the forests to what they were, say, prior again to the management of—taking away all fire, we would remove these dead and dying trees, host to these bark beetles. We'd have more of a forest like we'd have before. There wouldn't be so many trees competing for the same amount of moisture. So we talk about forest health, return a healthier forest by removing these trees, which are, also, of course, then, as we hear each summer in our part of California, the big forest fires would come. Also natural to the mountains are lightning strikes, and these lightning strikes during the dry part of the season in July and August, we will see all these forest fires that are created, and now, unlike, say, 100 years ago, now when we get a forest fire, these forest fires burn everything, not just the——

Mr. REGULA. Because the underbrush trees provide a fuel which makes a hotter fire.

Mr. HERGER. Exactly. So it burns everything. We have situations like we had, we saw in the news all last summer. One of my communities, Loyalton, was threatened three different times to burn the entire city down.

Mr. REGULA. Yes.

Mr. HERGER. And then when it burns, you get a scorch; literally, you hear a scorch. It scorches the ground so much, even trees are not able to regenerate within a couple of years, again a very unnatural situation.

And then with the spotted owl, some of these other situations, it compounds it where we can't go in and remove this dead and dying trees that we'd like to. We have that situation. We have the other situation over in one of our areas.

So we would appreciate funding for a Quincy Library Group. We have a group that got together, environmentalists, along with timber people, along with the community, who got together and came up with a plan here about a year ago, and these are some hardcore environmentalists. Now they're in a little bit different area that you'll be going to, but we'd love to get them back here and meet with you, Mr. Chairman. But they have worked out a plan of forest health.

Again, they go in; they combine taking out dead and dying with working for protection of the streams, of just general forest health. Again, having the type of situation that's not such that there's so many dead trees there, where we have overinfestations of beetles that kill even living trees and where we don't have this fire problem, which is an increasing problem in our part of the country.

We have another program that we would appreciate funding for that would allow us to go across in another part of my district. So we have the Quincy Library Group. We'd appreciate your funding. We haven't been able to get funding for this. This will basically pay for itself. That's the irony of this. Environmental groups have come together and said: here's a plan that we all agree on, that would be, we feel, a model for the rest of the country. We haven't been able to get funding for that to even try it out.

Mr. REGULA. If we gave you some, could you match it locally?

Mr. HERGER. I'm sure—I'm sure we can come up—we can work something out somehow, yes, Mr. Chairman. And the good news is that this—if we can get funding for this—it's interesting how it goes. We look for funding to do these things. We are actually return money to the Treasury. It's in a different hat. I wish we could show it all together because this money for this Quincy Library Group will actually pay for itself. We will get enough—if we can get to these trees before the bark beetles eat them completely up, then we can sell that, help build homes at a lower price in your district, so that your grandchildren, and so on, can afford to buy a home, and produce this paper that we all write on here.

Mr. REGULA. Okay. You'd better quit; you're ahead. [Laughter.]

Mr. HERGER. I'm ready to quit if you say so, Mr. Chairman.

There's a few other things that are in the testimony, but——

Mr. REGULA. We'll look at your testimony.

Mr. HERGER. Thank you very much.

Mr. REGULA. Okay. Thank you, Wally.

Mr. HERGER. Thank you.

Mr. REGULA. I look forward to being out there.

Mr. HERGER. We really look forward to having you out. Thank you.

Mr. REGULA. Thank you.

[The statement of Mr. Herger follows:]

United States House of Representatives
Committee on Appropriations
Subcommittee on Interior
The Honorable Ralph Regula, Chairman
March 29, 1995

Statement by The Honorable Wally Herger

Thank you, Mr. Chairman, for this opportunity to testify before your subcommittee in support of projects within the Forest Service which are important to my northern California district.

Forest Service timber sales in Region 5 have declined sharply in recent years, sending timber-dependent economies into a downward spiral from which many fear they will not recover. At the same time, forest health has also declined dramatically in the region causing an excessive build-up of dead and dying timber and other natural fuels that has contributed significantly to the spread of devastating wildfires throughout the region. 1994, for example, was one of the worst fire years in California history as wildfire consumed over 375,000 acres of National Forest land throughout the state.

Vigorous Forest Service green and salvage timber sales programs are essential to reversing the deterioration of the forests and the timber-dependent communities in my district. I am informed by professional foresters in California that a total of 350 million board feet of green sales and 520 million board feet of salvage should be harvested in the state annually in order to maintain healthy forests and healthy economies. I strongly support appropriation at both of these levels for Region 5.

Congress has already acted affirmatively to improve forest health and reduce the risk of wildfire through the increased salvage of dead and dying timber from our forests. A recent amendment to a House Supplemental Appropriations Bill would mandate the emergency harvest of 3.1 billion board feet of salvage nationally in each of two years. I strongly support the full implementation of this measure upon its enactment and urge that salvage sales in Region 5 be conducted in proportion to nationally mandated harvest levels.

Californians continue to lead the nation in the pursuit of active forest management policies. Ten years ago, a remarkable coalition of environmental, industry, labor and community leaders emerged in Quincy California. Calling itself the "Quincy Library Group," this coalition produced an innovative forest management plan that would virtually pay for itself in timber sales proceeds and which would include, among other features, an aggressive natural fuels reduction program and a network of riparian habitat and watershed restoration program. This plan would serve as a model for localized adaptive forest management plans throughout the country.

Although the Quincy Library Group plan has received local and national praise from timber interests and environmentalists as well as bipartisan support from Congress, it has yet to receive adequate funding from the Forest Service. The Group requires enough funding to manage 50,000 acres of forest land annually. Last year the Forest Service allocated to the Group only a small fraction of what it needed to fully implement its plan. I urge this subcommittee to fully consider the merits of the Quincy Library Group forest management plan and direct in its appropriation that sufficient Forest Service Funds be allocated for its implementation. This will set a clear precedent that will encourage similar cooperative efforts in timber communities throughout the nation and hasten the amelioration of our national forest health crisis.

Another important fire prevention program in my district is a proposed shaded fuel break for the Shasta-Trinity National Forest proffered by the Trinity Bio-Region Group. This fuel break, which would cover approximately 1500 acres spanning 43 miles of forest, would provide an effective fire prevention measure that is completely compatible with the President's Option 9 forest management plan while at the same time providing much-needed employment for residents of Trinity County.

Despite initial cooperation in developing the project and providing minimal seed funding, the Forest Service has not allocated any additional funding for the implementation of the fuel break plan. This has not only had a chilling effect on the Trinity Bio-Regional Group but also discourages similar initiatives in neighboring forests. To re-invigorate this and other pending fire prevention programs in my district, I request that this subcommittee support allocations within the Forest Service budget for the Shasta-Trinity shaded fuel break project.

As I have stated in previous testimony, I greatly appreciated the efforts of this subcommittee to mitigate the economic effects of declining timber sales in Northern California. I urge this committee to once again provide language in its 1996 appropriation that will ensure a minimum level of receipts returned to states that are affected by decisions related to the northern spotted owl and other factors that significantly reduce timber harvests.

In addition, I ask this body to extend these assurances to those provinces that are impacted by the California spotted owl environmental assessment and pending environmental impact statement. In recent years the effect of this forest management plan has reduced timber receipts for local schools and roads in impacted communities to a fifth of their historic levels. Soon I will introduce legislation that will increase timber sales receipts for these depressed communities. I urge this committee to assist my efforts by expanding the minimum receipts language in this appropriation to encompass California spotted owl impacted provinces.

Mr. Chairman, again, I appreciate this opportunity to testify on behalf of the vital interests of my district. On behalf of the people I represent, I urge this body to fully support these recommendations. Thank you.

INTERIOR.TEST

WEDNESDAY, MARCH 29, 1995.

FOREST SERVICE

WITNESS

HON. WILLIAM F. CLINGER, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. REGULA. Bill. We have forests in the East, too—Bill's here. We'll put your full statement in the record.

Mr. CLINGER. Thank you very much, and I appreciate the opportunity just to very briefly talk about three recreation facility projects in the Allegheny National Forest, which is, as you are aware, the largest—the only National Forest in Pennsylvania.

Mr. REGULA. We spent the first night of our honeymoon in the Allegheny National Forest.

Mr. CLINGER. Oh, goodness, well, then I've come to the right place. [Laughter.]

In a tent, Mr. Chairman? [Laughter.]

The first, and highest, priority of the three I'm talking about comes under the recreation facility category. It's a request for $300,000 for reconditioning and repaving the Longhouse National Scenic Byway. It is—it would be—actually, the overall cost is about $1.2 million over three years, and this request would be just to get it started. This is the one that the Forest Service places the highest priority on. It's falling apart. Guardrails are falling apart, and so forth.

The second one is Willow Bay Recreation Area, and this, again, is on the Allegheny Reservoir, created by the Kinzua Dam, about $150,000 for recreational facility improvements in this recreation area. It features 72 family campsites and a boat launch area, and so forth, and this would be to improve that.

The final recreation project that I would urge is $105,000 for facility enhancement in the Hearts Content Recreation Area and the Minister Creek Campground located at Deep Woods, the Allegheny National Forest. This, again, is not on the reservoir, but it's in sort of the primeval part of the Allegheny National Forest.

Mr. REGULA. I'm sure the Allegheny gets a heavy multiple use——

Mr. CLINGER. Very much so. In fact, it's been, I think, one of the—really the great examples of how you can really have effective multiple use in the forest, and——

Mr. REGULA. Are these State forests? Are they contiguous?

Mr. CLINGER. There are game lands nearby. No, the Allegheny is—it's called the Allegheny State Park, which is actually mostly in New York State. It is New York State.

Mr. REGULA. But are you saying all the forest is Federal?

Mr. CLINGER. All of Allegheny National Forest is all Federal, and it's—there's some State game lands adjacent to it.

Finally, I have one request under the category of land acquisition, which would be about a million dollars to acquire natural gas and oil rights under the 1,700-acre Kane Experimental Forest. This is one that—when we created some of these things, and the Allegheny National Forest was one we didn't buy the OGM under it, and this would be an opportunity to do that, so that they could—

the research they carry on is somewhat impeded by the fact that they don't own the OGM rights.

And, finally, I just want to express something I know that you share, what I consider to be a very inadequate budget request for the national timber sale program this year. During the late eighties, the forest timber sale program got funding to sell about 11 billion board feet annually, and the President's request, as I understand it, this year would provide for a nationwide timber sale at only about 3.86 billion board feet, and that's a two-thirds reduction in seven years.

We're a moneymaker——

Mr. REGULA. You're hardwood, I would assume?

Mr. CLINGER. Right. And we have some of the finest black cherry in the world.

Mr. REGULA. Are they into a sustained yield program? Are they reforesting as they go?

Mr. CLINGER. Yes. And it's been—we feel as though it's really—we'd actually produce some revenue for the Treasury because it has been a profit-making forest. And so I would ask the subcommittee to reject the President's budget request because I think it's just foolhardy to limit—at least there ought to be some recognition given that there are some forests that make money; others may cost money, but some really do quite a good job and do it in a responsible way.

Mr. REGULA. Hardwoods are very valuable for furniture, and so on.

Mr. CLINGER. Right.

Mr. REGULA. Okay. Thank you very much.

Mr. CLINGER. I appreciate your attention.

[The statement of Mr. Clinger follows:]

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Congress of the United States
House of Representatives
Washington, DC 20515–3805

Statement of
The Honorable William F. Clinger, Jr.
before
The Appropriations Subcommittee on Interior
March 29, 1995

Chairman Regula, Ranking Minority Member Yates, and members of the Subcommittee, thank you for allowing me to testify today. I appreciate the opportunity to briefly discuss three high priority recreation facility projects and one land acquisition project in the Allegheny National Forest that I believe are worthy of your support.

All 513,000 acres of the Allegheny National Forest – the only National Forest in the Commonwealth on Pennsylvania – lie within my district in the counties of Elk, Forest, McKean and Warren. With roughly one-third of the nation's population within a day's drive, the Allegheny is one of the most heavily used National Forests in the United States. According to the Forest Service, an estimated 12 million people visit the Forest every year.

The shear volume of human traffic and the age of many of the recreation facilities have contributed to the deterioration of the Allegheny National Forest's infrastructure. Rehabilitation and modernization of existing facilities is a priority since many of them were built in the 1930's by the Civilian Conservation Corps and are not readily accessible to people with disabilities as required by the Americans with Disabilities Act.

I respectfully request the Subcommittee's support for three recreation facility improvement projects and one land acquisition project on the Allegheny National Forest for Fiscal Year 1996. The requests are listed in order of priority for each category:

LONGHOUSE NATIONAL SCENIC BYWAY (FOREST ROAD 262)

First, my highest priority of three projects under the **RECREATION FACILITY** category is a request of $300,000 for the design, reconditioning and repaving of the Longhouse National Scenic Byway (Forest Road 262).

Longhouse National Scenic Byway offers 20 miles of scenic and convenient access to the Allegheny Reservoir, the premiere recreation area of the Allegheny National Forest. It completely encircles the Kinzua arm in the southern part of the Allegheny Reservoir. Longhouse National Scenic Byway is comprised of sections of State Routes 59 and 321, and all of Forest Road 262, also known as Longhouse Drive.

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

Three major campgrounds (Dewdrop, Kiasutha and Red Bridge), three boat launches (Dewdrop, Elijah and Kiasutha), two overlooks (Jakes Rocks and Rimrock), one day use area (Kinzua Beach), and a full-service marina (Kinzua-Wolf Marina) can be reached by travelling the Longhouse National Scenic Byway. It provides Reservoir access to more than 700,000 recreation visitor days (RVDs) worth of visitors who come annually to camp, fish, water ski, boat, swim and enjoy the scenic outdoors. In the winter, 11 miles (the FR 262 portion) is designated for joint use with street legal vehicles and snowmobiles (but is not plowed).

The 11.2 miles of FR 262 were last paved in 1968, and are deteriorating, with failed guardrails and cracked pavement. A chip-sealing project in 1987 temporarily slowed the deterioration.

In 1991, Forest Service management installed culverts and paved over them to prepare for future paving of the entire roadway. Funding constraints have prevented further action. The situation continues to deteriorate since the road surface is heavily used by the increasing numbers of visitors to the Allegheny Reservoir.

The Forest Service's concern should be the safety of the recreating public, and the Allegheny National Forest personnel feel safety is being compromised as the road condition worsens. Also, visitors driving RVs or tour buses, or towing boat or camping trailers, complain about the condition of FR 262 and its negative effect on their equipment.

Reconditioning and repaving FR 262 would cost approximately $1.2 million. Since too many phases would be inefficient and disruptive to visitors, it would be best to complete the project in no more than three years. The request for funding in Fiscal Year 1996 is for the first phase of the project.

The project would involve slope stabilization, repaving and guardrail replacement. We plan to meet the "3R" (Resurfacing, Restoration, and Rehabilitation) criteria for rural roads as set forth by PennDOT, the Highway Safety Act and other "industry standards."

WILLOW BAY RECREATION AREA -- PHASE III

Second, I am requesting $150,000 for the design, construction and administration of recreation facility improvements in the Willow Bay Recreation Area.

Willow Bay Recreation Area is located on the northern end of the 12,000 acre Allegheny Reservoir, just below the New York state line. The area overlooks the south shore of Willow Bay, a small arm on the eastern side of the Allegheny Reservoir. Willow Bay Recreation Area features 72 family campsites and a day use and boat launch area. It is an important facility, providing a quality recreation experience in this area of the Allegheny Reservoir, used by thousands of visitors each year.

Although the day use and boat launch area are popular with visitors, the facilities are dated and awkward. The day use and boat launch area needs various refinements to make it more convenient, safer to use, and to meet the needs of people with disabilities.

The project calls for extending the existing boat launch lanes, making them flatter and straighter. It would create boat ready lanes so those waiting to launch would have a safe place to wait, and realign the entrance and exit roads into the boat launch area to improve accessibility.

The project also includes a new courtesy dock, similar to the one just installed at Kiasutha Recreation Area on the southern end of the Allegheny Reservoir. A longer, more stable dock system is needed in order to maintain safety and to provide sufficient dock space for the loading and unloading needs of boaters into the extended seasons of early spring and late fall. A more appropriate design would also meet the needs of people with disabilities.

The Forest plans to install new SST (sweet-smelling toilet) facilities. The modern design of these toilets eliminates the foul odor often associated with traditional vault toilets, making them more pleasant for use by visitors. The design also makes them accessible for people with disabilities.

HEARTS CONTENT RECREATION AREA AND MINISTER CREEK CAMPGROUND

Third, I am requesting $105,000 for the design, construction and administration of recreational facility enhancements in the Hearts Content Recreation Area and the Minister Creek campground.

Hearts Content Recreation Area is located 15 miles southwest of Warren, Pennsylvania, on the Sheffield Ranger District of the Allegheny National Forest. Its 26 family campsites and playground are adjacent to the Hearts Content Scenic Area, a lovely 121-acre virgin forest, and the Hickory Creek Wilderness. Due to its remarkable character, Hearts Content Scenic Area was designated a National Natural Landmark in 1977.

Minister Creek Campground is similarly located in deep woods on the Sheffield Ranger District. The Allegheny National Forest's smallest campground, it has only six family campsites situated along the babbling waters of Minister Creek. Minister Hiking Trail, a six-mile loop, starts and ends at the campground.

Similar facility enhancements have been proposed for the campgrounds at both Hearts Content and Minister Creek. These improvements include site work in and around the recreation areas and new SST (sweet-smelling toilet) facilities. The improvements will make the sites safer and more convenient to use, and will meet the needs of people with disabilities.

The site work at both Hearts Content and Minister Creek includes landscaping, leveling, hardening and new site furniture, such as picnic tables. This site work will make it easier for people with disabilities to access all portions of these recreation areas. The old vault toilets will also be removed.

Making these site and toilet improvements at these specific recreation areas is very significant. To date, all accessibility enhancements have been made in fully developed recreation areas, such as those around the Allegheny Reservoir. Hearts Content and Minister Creek are small, rustic and semi-primitive, and as such, offer a totally different recreational experience that appeals to a different group of visitors. Once upgraded, they will be the first fully accessible recreation areas offering such a rustic and primitive experience.

MINERAL RIGHTS - KANE EXPERIMENTAL FOREST

Finally, I have one request under the category of **LAND ACQUISITION -- $1,006,000** to acquire all of the natural gas rights and about half the oil rights under the Kane Experimental Forest.

The 1,737 acres of the Kane Experimental Forest (KEF), located near Kane, Pennsylvania, lie in the heart of the Allegheny National Forest. Ninety-four percent of the mineral rights beneath the Allegheny National Forest are privately owned, and the Forest works cooperatively with the owners of these rights to protect surface values.

Scientific research and environmental education on various forest management issues has been ongoing at the KEF for 65 years. Over the years, research has focused on, among other things, silvicultural practices of the Allegheny Plateau, biological diversity impacts from deer density, and timber regeneration. The research findings are used to guide ecologically sound and productive forest management used on over one million acres of public and private lands.

Users of these research results include International Paper, Hammermill Paper Company, Kane Hardwoods division of Collins Pine, Glatfelter Paper Company, state agencies in Pennsylvania and New York, federal agencies including the Allegheny National Forest, and international cooperators. KEF plots have been used for formal training of more than 1,200 public and private natural resource managers since 1977, and for demonstrations for public and school groups.

A study is underway to determine the location of a new, high-output, gas line to respond to increased demand for this resource. Also under study is the feasibility of expanding a subsurface storage field adjacent to the KEF. Given proposed development in the local area on a multi-million dollar level to transport oil and gas to market, mineral activity will likely increase within the KEF.

Intensive development of gas and oil rights could result in wells drilled in a square pattern every 500 feet, with each site occupying up to 1/4 acre. The important research being conducted at KEF merits protection from this kind of disturbance, which would significantly compromise the integrity of the research. Negotiations with owners of oil, gas and mineral rights will focus on eliminating the risk of surface disturbance within the KEF. Active research is occurring on every parcel being considered for purchase.

The estimated cost to acquire all the gas rights and about half the oil rights in fiscal year 1996 is $1,006,000. A future acquisition will be necessary to acquire the remaining oil rights, when they become available.

Mr. Chairman and members of the Subcommittee, that concludes my testimony. I would be happy to respond to any questions that you may have. Again, thank you for the opportunity to testify.

WEDNESDAY, MARCH 29, 1995.

FOREST SERVICE

WITNESS

HON. GEORGE MILLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REGULA. Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman. Thank you for your time and——

Mr. REGULA. We'll put your full statement in the record.

Mr. MILLER. And I will be very brief, and recognizing the pressures of the 100 days and the role of this committee in providing revenues, I simply want to express my concern that at some point we're able to distinguish between legislating and appropriating in your bill, but I also recognize the circumstances under which you were just operating with——

Mr. REGULA. We try to avoid that as much as possible.

Mr. MILLER. I appreciate it.

And the other two items that are of concern to me are items that this—you and the subcommittee have been deeply involved in, and that is the moratorium on rock mining patent and mineral patenting until we can sort out a mining bill. And I think there probably certainly will be an initiative coming over from the Senate later. I would hope that we would not rush to patent lands that we would then lose our ability to reclaim something for the taxpayer from those lands. And, also, with the existing moratorium on the OCS lands off of California, which this committee has struggled with for a number of years, and we appreciate all of your efforts of that.

With respect to the Land and Water Conservation Fund, as you know, our committee intends to send to you bills for lands that we authorize the National Government to buy, and, obviously, the Land and Water Conservation Fund has never been—has never had anywhere near its unobligated balances appropriated. I know, again, that the members of this committee have struggled long and hard for that, but we, clearly, are building up a backlog of willing sellers.

Then this concern over private property, obviously, they have made a decision. They'd like now to be paid for that decision and get on with their lives. To the extent to which we can start working down that backlog, and especially if we slow up the numbers that we have been sending to you in terms of parcels to acquire, maybe that can be worked out.

And, finally, on the issue of UPARR, which is the Urban Parks and Recreation Restoration Program, which the administration has already cut fundings out of, and I believe has left about $2.5 million into that, the grants from local governments far exceed the ability of this fund, but I think it shows the significance of this program to try and reclaim some of our recreational areas for young people. This legislation was passed and the authorization was increased with the strong support of local government and the police organizations and the recreational industry from around the country. And I would hope that we could maintain that program to the best extent that we can, given all of the competing interests you have in the budget.

And just also to say that I want to continue to work with you and Congresswoman Pelosi and others on the Presidio. It's a tough and difficult problem, but it's clearly an asset that is worthy of saving and protecting and adding to the inventory of the National Park System in all of its splendor. And so we would hope that we would be able to continue the $25 million, and, hopefully, again, the Presidio bill will pass this year. We came very close last year—to start allowing the private sector to raise funds for that park. I think you may even be—are you going to visit the——

Mr. REGULA. Jim Hansen and I are——

Mr. MILLER. Right, spend the day, yes. We welcome you. I will not be there at that time, but we certainly welcome you to the area and hope you enjoy your visit.

Mr. REGULA. Okay.

Mr. MILLER. Also, it's hard to come to you with a list because you've got to struggle so damned hard in this committee and you're under the gun, but I appreciate your taking the time. These are difficult times, but we appreciate all your work in the past and you'll have to sort out the priorities the best you can.

Thanks.

Mr. REGULA. Thank you.

[The statement of Mr. Miller follows:]

STATEMENT OF HON. GEORGE MILLER
SENIOR DEMOCRAT, HOUSE RESOURCES COMMITTEE
before the
HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE
MARCH 29, 1995

Mr. Chairman and Mr. Yates, as Senior Democrat on the Resources Committee, I appreciate the opportunity to appear before you and the other Members of this Subcommittee.

As you know, we have worked closely together in the past on matters of mutual interest in the Interior appropriations process. The Fiscal Year '95 bill was developed with much less controversy than in past years. This Congress, the matters of mutual interest between the appropriators and authorizing committee remain, but our ability to work together appears to be in question.

My main concern -- based on the precedent of salvage sale language in the recent rescissions bill -- is that this subcommittee will continue to legislate on subjects which are within the jurisdiction of authorizing committees. The notion that appropriators can insert "notwithstanding any other provision of law" and proceed to rewrite the land use laws is contrary to House rules and offensive to the public.

I certainly don't envy the task that you face. In the best of years, adequately funding the many important priorities for the Interior Department, the Forest Service, and other programs within your jurisdiction is difficult at best. Finding more cuts to conform with the Majority's deficit reduction and tax cut goals will make your job even harder.

With that in mind, why take on the additional burdens and controversy of doing our committee's work too? We anticipate a very active agenda on the Resources Committee, where we will have more time, and the benefit of public testimony and formal comment by the Administration, before changing policies that are, in many cases, decades old. In accordance with the House rules, I request that you defer any further authorizing action in your bills and allow us to deal with these issues in the proper forum.

There are, however, two areas where we continue to need your assistance in order to encourage a resolution in the authorizing process.

The first is a continuation of the moratorium on issuing hard rock mining patents. Thanks to the leadership of Chairmen Regula and Yates, the long-standing House position on this issue was adopted last Congress. The future of the mineral leasing program remains very much in doubt. I would hope that we would be able to defer additional patenting -- which removes lands from eligibility for future royalties -- until the House has once again acted on overall mining reform.

The second need is for an extension of the existing moratoria on OCS leasing in California waters. We came close to reaching a resolution on OCS issues in the 1992 Energy legislation, but these are controversial matters and our Committee deserves a chance to deal with them. In the meantime, there is strong bipartisan support for extending the moratorium on leasing off the California coast.

In addition, Mr. Chairman, I want to comment on the Land and Water Conservation Fund and this subcommittee's role in appropriating money for land acquisition. The LWCF currently has a unobligated balance of nearly $10 billion. About $900 million in OCS receipts are credited annually to the fund.

Yet year after year, Congress appropriates only a small fraction of the money dedicated by the LWCF for land acquisition. The Administration's total FY 96 request of $235 million for the BLM, Fish and Wildlife Service, National Park Service, and Forest Service is a fraction of what is necessary to meet the needs across the nation. The LWCF is already paying more than its fair share for deficit reduction. I urge you to protect the interests of private property owners who are willing sellers of their land to benefit the public by supporting the Administration's LWCF request.

I am very concerned about the recent rescissions package and current recommendations to terminate funding for the Urban Park and Recreation Recovery Fund (UPARR) program. The Administration's FY 96 budget request for the UPARR matching-grant program is $2.3 million, a decrease from the FY 95 amount enacted to date of $7.5 million. This $5 million decrease is confirmation that the Administration has carefully scrutinized its budget requests, reducing funding levels to some of its most successful programs to the bare minimum.

Over the past 15 years, UPARR grants have proven to be successful in stimulating local governments to develop and renovate urban recreation systems, particularly in economically and socially distressed communities where there are few facilities to serve at-risk youth. In FY 94, over 170 applications were received by the Park Service and only 38 grants were awarded, totaling $4.8 million. Comparable application levels are anticipated for Spring, 1995.

UPARR has the strong support of local officials, police organizations, youth groups and many others. Without continued UPARR funding, the children who most need recreational opportunities will be denied even a modest level of assistance from their government. I think we can do better than that.

I also strongly recommend inclusion of the $25 million in funding for the Presidio requested by the Administration. As you know, the House passed several Presidio bills last session, but intransigence in the other body prevented us from securing enactment of this necessary measure. We will continue to work, with Congresswoman Pelosi, Senators Boxer and Feinstein and others, on the authorization for this important addition to our national park system.

Lastly, I will be sending you separately a letter detailing several concerns about the level of funding necessary to meet our obligations and responsibilities to Indian tribes in such areas as health services and law enforcement.

Thank you for the opportunity to testify today.

WEDNESDAY, MARCH 29, 1995.

WOLF CREEK NATIONAL FISH HATCHERY

WITNESS

HON. ED WHITFIELD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KENTUCKY

Mr. REGULA. All right, we're ready to go.

Mr. WHITFIELD. Thank you very much, Mr. Chairman.

Mr. REGULA. We'll put your full statement in the record——

Mr. WHITFIELD. Okay.

Mr. REGULA [continuing]. And ask you if you would summarize for us.

Mr. WHITFIELD. Yes. Mr. Chairman, President Clinton's budget proposal for Fiscal Year 1996 targeted several national fish hatcheries to be transferred to the States.

Mr. REGULA. Right.

Mr. WHITFIELD. Some of the States actually requested that the transfer be made; for example, in Iowa, Arkansas, and Minnesota. But the Wolf Creek National Fish Hatchery in Russell County, the State of Kentucky has written us a letter saying that they do not want to be responsible for it; they're not interested in it. It's my understanding that if they transfer and the State will not take it, that it may be privatized. My constituents are very concerned about that. We believe that the collapse of this sport fishery would have a terrible effect on 70 streams and lakes in Kentucky. We've received nearly 3,000 letters in opposition to the loss of the hatchery.

The bottom line is that this is the second most efficient, according to studies, and the only disease-free hatchery in the Nation. It cost $300,000 a year for the Government to maintain it, and we would simply ask the chairman and the members of this committee to restore that to the Fiscal Year 1996 budget. The small amount that the Federal Government provides stimulates $25 million in commerce for the area.

Mr. REGULA. Does the State use any of the fingerlings to stock State streams or lakes?

Mr. WHITFIELD. It's my understanding that they do use some, but I'm not aware of——

Mr. REGULA. What I'm getting at is whether the State would be able to put any money into the operation.

Mr. WHITFIELD. Erin, you had talked to them. What did their letter say? They said no; they would have to significantly raise the fish licenses for the visitors. It would decrease tourism.

Mr. REGULA. Well, I understand they wouldn't take it over, but would they be able to make any contribution?

Mr. WHITFIELD. Again they said that they'd have to increase the entrance fees and licenses fees which would decrease the economy in the area.

Mr. REGULA. Do they get fingerlings that probably serve a whole variety of interests?

Mr. WHITFIELD. Right.

Mr. REGULA. Has this one been in existence for quite a long time?

Mr. WHITFIELD. Yes, sir.

Mr. REGULA. Was this proposed by the President for——

Mr. WHITFIELD. Right; it was in his budget proposal to turn the hatchery over to the state, and privatize it, if the state cannot afford it.

Mr. REGULA. I see. Okay, well, we'll keep that in mind.

Mr. WHITFIELD. I appreciate your consideration.

Mr. REGULA. Does Hal have a piece of this, too?

Mr. WHITFIELD. Well, this county, Russell County, was in Hal's district before they reapportioned. He is very interested in maintaining the hatchery in the federal government's budget. He signed the letter that we sent to you about this.

Mr. REGULA. Oh, I see.

Mr. WHITFIELD. Ultimately, the prosperity of the area affects his district.

Mr. REGULA. Right. Okay, thank you very much.

Mr. WHITFIELD. Thank you, Mr. Chairman.

[The statement of Mr. Whitfield follows:]

STATEMENT BY
U.S. REP. ED WHITFIELD
TO THE
INTERIOR APPROPRIATIONS SUBCOMMITTEE

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on the importance of the Wolf Creek National Fishery to the State of Kentucky.

As you know, President Clinton's budget proposal for FY96 targeted several national fish hatcheries to be transferred to the control of the respective states. In those cases where the state elects not to accept the transfer, the federal government has reserved the right to sell the assets to private interests.

National fish hatcheries in Iowa, Arkansas and Minnesota will be transferred to state control, with the state's permission. However, the Kentucky Department of Fish and Wildlife Resources has informed me that the financial burden the Wolf Creek National Fish Hatchery would place on the state is excessive. Subsequently, "the collapse of a significant sport fishery will have a terrible effect on 70 streams and lakes in Kentucky." With the copy of my testimony, I also included a copy of the letter that I received from the Kentucky Department of Fish and Wildlife Resources.

I am here to request that Kentucky's Wolf Creek National Fish Hatchery, the second most efficient and only disease-free hatchery in the nation, be removed from consideration for transfer in the upcoming appropriations legislation on fish and wildlife.

I would like to point out the importance of the hatchery to the State of Kentucky. In 1994, there were over 1.5 million trout produced at the Wolf Creek Fishery and 70,000 to 100,000 tourists visited the facility for recreation, education and fishing contests. More importantly, forty years ago, the Federal Government eliminated the only other fishery in Kentucky, the Wolf Creek area fishery of the Cumberland River, by building the Wolf Creek Dam. As a result, the Wolf Creek National Hatchery is primarily a mitigation facility, replacing the warm water habitat that was destroyed when the Wolf Creek Dam was built.

Thank you for this opportunity, and I would be happy to answer any questions that you might have.

FEB [illegible] 1995

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COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH AND WILDLIFE RESOURCES
C. TOM BENNETT, COMMISSIONER

Phone (502) 564-3400

February 15, 1995

The Honorable Edward Whitfield
House of Representatives
1541 Longworth House Office Building
Washington, DC 20515

Dear Congressman Whitfield:

I appreciated the opportunity to meet with you and Lisa Matheny last Wednesday, February 8 to discuss topics concerning the future of fish and wildlife resources in Kentucky.

We talked about the future of Wolf Creek National Fish Hatchery, located on the Cumberland River in Russell County.

Since my return to Frankfort, we have learned of USFWS plans to close the facility beginning October 1, 1995. As we discussed, this decision abandons a partnership which provides trout to mitigate the changes brought about when the construction of federal dams irreversibly altered natural stream habitats. Warm water streams were destroyed. Native fish won't prosper in the cold water from these dams. Trout have been stocked to replace the loss of warm water fisheries. The loss of this facility will cause the loss of a significant recreational fishery serving nearly 40,000 Kentuckians annually.

Wolf Creek National Fish Hatchery is a defacto mitigation facility that provides trout for 70 Kentucky streams and lakes, the Ft. Campbell military reservation, and several streams in the Daniel Boone National Forest.

It is the aim of USFWS to transfer those stocking responsibilities entirely to the Kentucky Department of Fish and Wildlife Resources and turn their back on the obvious federal responsibilities.

The financial and personnel burdens associated with this transfer are untenable from our perspective. Our assumption of an additional $300,000 responsibility is not possible and the collapse of a significant sport fishery will have a terrible effect on 70 streams and lakes in Kentucky.

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WEDNESDAY, MARCH 29, 1995.

NATIONAL PARK SERVICE LAND ACQUISITION

WITNESS

HON. JACK KINGSTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. REGULA. Jack, we'll put your whole statement in the record, and——

Mr. KINGSTON. Okay. Well, do you need me to do anything? [Laughter.]

Mr. REGULA. As I understand it, St. Mary's wants a moratorium?

Mr. KINGSTON. Yes, sir.

Mr. REGULA. And land acquisition, and you want to preserve the home or that building?

Mr. KINGSTON. That's correct. And they have purchased—the Interior, the Parks Department had purchased some buildings in downtown St. Mary's which were historic buildings, and one of them they had to tear down because they did not repair it. So you know about that.

Then the other issue—did you talk about the money? I move for adjournment. [Laughter.]

Mr. REGULA. We're getting close. [Laughter.]

Yes, we've got your statement. As you know, Jack, it's going to be a tough year here. We just don't know how much money we're going to have to deal with, but we're sensitive to the problems.

Mr. KINGSTON. As I understand it, this $1.5 million should be coming from the Senate side because that's who had transferred the money originally, and they should be more——

Mr. REGULA. Yes, we reprogrammed your money to Ohio. So we'll try to make sure you get it back this year. [Laughter.]

As I understand, your State is now ready to go forward.

Mr. KINGSTON. They want to do—they want to eventually sell off another 2,000 acres, and they'd love to do it immediately, but we've explained to them the budget constraints and that the $1.5 million is what they need to concentrate on right now.

Mr. REGULA. Oh, in other words, what is $1.5 million?

Mr. KINGSTON. Well, it was originally in there for land acquisition, and it was taken out last year——

Mr. REGULA. Right.

Mr. KINGSTON [continuing]. In the Senate, as an agreement between one of our Senators and another Senator. Now we just want the $1.5 million back which was agreed to at the time——

Mr. REGULA. But that will buy some of this land?

Mr. KINGSTON. Yes. The $1.5 million will go towards the acquisition of property on the Greyfield Tract on the Island.

Mr. REGULA. Well, I'd rather put it in to do it, to make the buy rather than put it aside, because if we just put it in, then it will end up getting reprogrammed again.

Any unspent money is a real target.

Mr. KINGSTON. Okay. Then we will make sure it's specifically earmarked then because——

Mr. REGULA. It's almost—you know, it's for something and it's ready to go, is what it amounts to.

Mr. KINGSTON. Okay, we'll move in that direction.

Mr. REGULA. Is this in the President's budget?

Mr. KINGSTON. No.

Mr. REGULA. But it was reprogrammed last year. So I think we have an obligation to put it back or to make it available.

Mr. KINGSTON. And on the other question, would that be report language? Report language? Okay.

Thank you very much.

Mr. REGULA. Okay, thank you. Glad to help.

[The statement of Mr. Kingston follows:]

REPRESENTATIVE JACK KINGSTON

INTERIOR APPROPRIATIONS - $1.5 MILLION AND LANGUAGE

I am testifying before you today on two issues. The first has to do with St. Marys, Georgia and the second about Cumberland Island National Seashore.

The National Park Service has purchased four pieces of property in St. Marys in recent years and has allowed them to decay or, in the case of the most significant piece of property, has

torn it down. This structure, Miller's Dock, was an historic dock and was extremely important to the community's history. I'll leave with you today a letter from the State Historic Preservation Officer describing the importance of the Dock. Additionally, the only historic home in the city is becoming an eyesore. Please take a look at the pictures of these buildings and land that are currently under the National Park Service's care. The Citizens of St. Marys would like to have our assurances that the National Park Service will not be allowed to purchase any more property in their City until they take care of what they already own. We would appreciate the Subcommittee's inclusion of language in the Subcommittee's bill which states,

> "The Department of the Interior, National Park Service, shall neither plan nor consummate further acquisitions of property in the City of St. Marys until Millers Dock and the Bachlott House, both owned by the National Park Service, are fully restored by the National Park Service."

The second issue has to do with Cumberland Island National Seashore. In the FY93 Interior Appropriations bill, $1.5 million was appropriated to the National Park Service for the acquisition of property on the Greyfield Tract on Cumberland Island. Because the estate which owned the property was not settled, an agreement was reached to reprogram money from the Cumberland Island appropriation to Hopewell Culture National Historical Park with the understanding that the funding will be replaced during the next fiscal year along with additional funding. I am requesting that this funding be replaced in the FY96 Interior Appropriations bill. I've also brought along a copy of the letter from Senator Coverdell and Nickles outlining this agreement.

I would appreciate your help in these two requests. I look forward to working with you.

GEORGIA

AND FORESTRY
FOREIGN RELATIONS
SMALL BUSINESS

United States Senate
WASHINGTON, DC 20510-1004

March 29, 1993

The Honorable Don Nickles
Senate Hart Office Building 713
Washington, DC 20510

Dear Don,

It is my understanding that the appropriation for acquisition of property on Cumberland Island has been unused for two years while waiting for the Ferguson Estate to settle. It is now apparent that the Estate will not settle during Fiscal Year 1993, and the Interior Department has determined that there are other higher priority projects that need funding during this fiscal period.

I will consent that $1.5 million should be reprogrammed from the Cumberland Island appropriation to the Hopewell Culture National Historical Park with the understanding that the funding will be replaced during the next fiscal year. I would also like to point out that the Cumberland Island National Seashore will need additional funding in order to complete the property acquisition, and I appreciate the support that you have offered and willingness to assist my office with this additional appropriation.

Thank you again for your assistance. Please let me know if I can be of any further help.

Sincerely,

Paul D. Coverdell
United States Senator

CC: Rep. Ralph Regula

Georgia Department of Natural Resources

D. Tanner, Commissioner

205 Butler Street, S.E., Suite 1482, Atlanta, Georgia 30334
Parks, Recreation, and Historic Sites Division
Office of Historic Preservation
Elizabeth A. Lyon, State Historic Preservation Officer
(404) 656-2840

October 8, 1992

Paul B. Hartwig
Deputy Associate Regional Director
Cultural Resources
Southeast Region
United States Department of the Interior
National Park Service
Southeast Regional Office
75 Spring Street, SW
Atlanta, Georgia 30303

RE: Miller Dock and Dockhouse, St. Marys
Camden County, Georgia
HP920909-002

Dear Mr. Hartwig:

The Office of Historic Preservation has reviewed your request for assistance in making a National Register determination of eligibility for the Miller Dock and Dockhouse located in St. Marys. According to the information provided, the Miller Dock and Dockhouse consists of a 1930's dock and a dockhouse that dates from 1945 with additions in 1946 and 1948. We understand that the dock and dockhouse were used for the Miller's shrimping business. In addition, the property was included in a 1985 historic building survey of St. Marys done by the local community, indicating that the property is considered significant within the community's history.

In your letter, you state that "the property is not eligible due to deterioration and major structural problems". We disagree with this eligibility assessment because condition does not play a role in National Register eligibility decisions unless a property is so deteriorated that is has lost its historical architectural integrity; in this case, the property still retains its character-defining features.

We are unwilling at this time to agree that the property is not eligible for listing in the National Register of Historic Places. We believe that it is possible for the Miller Dock and Dockhouse to meet the National Register criteria if it is evaluated within the appropriate context. Because of its unique and highly visible character on the St. Marys waterfront, the property should be further evaluated within the following historic contexts:

Unique Structure: As far as we know, this property is a unique structure. It may be the only remaining example of this type of building which once may have been commonly found in coastal communities. Or, it may be the only example of this type of building constructed on the Georgia coast. Information should be provided that shows whether or not this property is indeed a unique structure.

Fishing/Seafood (Shrimping) Industry in Georgia: The property should be evaluated within the context of the shrimping industry in Georgia. We have little information on this industry and the historic resources associated with it. There is a possibility this resource could be eligible under Criterion D for its potential to yield information about this historic context, especially if it is a rare surviving example of its type.

Miller Family: The property should be evaluated for its associations with the Miller family and its role in the coastal community and the shrimping industry. Information in published county and local histories suggests that the Millers were locally and possibly regionally significant.

We look forward to working with the National Park Service as this project develops. If we may be of further assistance, please contact Audrey Entorf, Review and Compliance Coordinator, at (404)656-2840.

Sincerely,

Richard Cloues

Elizabeth A. Lyon
State Historic Preservation Officer

EAL:ae
cc: Kirk Schlemmer, Coastal RDC

WEDNESDAY, MARCH 29, 1995.

SANDY HOOK UNIT, GATEWAY NATIONAL RECREATION AREA

WITNESS

HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. REGULA. Okay, Mr. Pallone is it. Frank, we've got about two minutes.

Mr. PALLONE. Oh, I'm sorry.

Mr. REGULA. That's all right. We'll put your statement in the record.

Mr. PALLONE. I will not even use the two minutes, but let me just tell you where I'm coming from, if that's all right.

Mr. REGULA. Okay, sure.

Mr. PALLONE. I appreciate it, Mr. Chairman.

Basically, I wanted to ask about Sandy Hook, which really has experienced—Sandy Hook is part of Gateway National Recreation Area.

Mr. REGULA. Right.

Mr. PALLONE. It's in my district.

Mr. REGULA. Right.

Mr. PALLONE. And it's experienced a serious shortfall in funding. Basically, they have a number of projects that they feel are necessary in order to keep the place going in an adequate fashion, and this includes $1.1 million for construction of a northern bike path, another $400,000 for planning of a southern bike path, but even more important, the design work that's necessary for the utility system. Their old utility system is not functioning any more, and also the road; they've had major problems with the road breaking up and they need, I think said $1.1 million—it's in the testimony—to actually rehabilitate and resurface the road.

There's also a request for half a million dollars for planning and development of a proposal to preserve the historic structures. If you've ever been there or you know about it, basically, there are all these historic structures that are basically falling apart, and they've put together a proposal for private money, where they think they can raise a lot of private money if they can just get a small amount of Federal money to do the planning and design work for some of these buildings.

The other thing that I wanted to mention is, if it's possible, to get a small appropriation, $50,000, for another historic site in the district, the Long Branch Historical Museum, where eight Presidents worshipped—this is another building that is seriously deteriorating. The roof is falling in, and we're afraid it's not going to be——

Mr. REGULA. Who has title to it now?

Mr. PALLONE. It's owned by the Historical Society, and it's authorized pursuant to a section of the U.S. Code that I cited as a national historic——

Mr. REGULA. Is it near the park at all?

Mr. PALLONE. Very close to the park, yes, it is.

And the other thing is I don't have a specific request with regard to the Land and Water Conservation Fund. I have an area that's in the process of getting designated as a Fish and Wildlife—as a Wildlife Refuge called Dismal Swamp. We're not at the point to ask for money yet, but I did want to say, if there's any way to make sure that there's sufficient funding in that program, because I know that there's always a question of cutting it.

Two more things and I will stop: one is at Rutgers—New Jersey's one of five States that doesn't have a National Biological Survey Cooperative Research Unit, and we were trying to see if we could do that. I know other States have asked for a small amount of money. We need $25,000 to establish the unit.

And, finally—I know this is one that you may not agree with me on, and that's on the offshore oil and gas drilling in the Mid-Atlantic Region. I'm hoping that this subcommittee will continue the moratorium on all the pre-leasing activity. I know every year for the last few years it's not been a problem. I would like to see that language in there again. I don't know where you stand. I know at one time you——

Mr. REGULA. Well, historically, I've been against the moratoria. I think we'll have to look at it. It's become almost a standard part of these bills.

Mr. PALLONE. Right.

Mr. REGULA. We just need to look at the whole topic.

Mr. PALLONE. I guess my feeling, Mr. Chairman, is that there's such a small amount of oil that they have found that might be drilled, and for that relatively small amount, given how important tourism and preservation of the environment is in our area, it just seems like it's not worth it.

Mr. REGULA. I'm certainly not for drilling everything. I think there are ecological values you have to take into consideration.

Mr. PALLONE. I know that.

Mr. REGULA. Thank you.

Mr. PALLONE. All right, thanks a lot.

[The statement of Mr. Pallone follows:]

COMMERCE COMMITTEE
Energy and Power Subcommittee
Ranking Minority Member
Health and Environment Subcommittee

Reply to
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420 Cannon House Office Building
Washington DC 20515-3006
Telephone (202) 225-4671

FRANK PALLONE, JR.
6TH DISTRICT, NEW JERSEY

Congress of the United States
House of Representatives
Washington, DC 20515-3006

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STATEMENT OF THE HONORABLE FRANK PALLONE, JR. BEFORE THE SUBCOMMITTEE ON INTERIOR COMMITTEE ON APPROPRIATIONS

MARCH 29, 1995

Thank you Mr. Chairman and Mr. Yates for allowing me to testify in support of projects that are of major importance to me and my district. As you know I represent a densely populated, coastal district that is very environmentally conscious, contains significant natural and historical treasures, and is home to New Jersey's state university. We, therefore, have very diverse needs in terms of maintaining our public lands.

For instance, my district encompasses the Sandy Hook Unit of the Gateway National Recreation Area (NRA). The Gateway NRA is visited by some 9 million people each year and Sandy Hook attracts around 3 million of those visitors annually. These people come from all over the New Jersey-New York-Philadelphia metropolitan area to take advantage of Sandy Hook's bathing beaches, fishing areas, natural beauty, and historic structures. The park provides an opportunity for people of all economic backgrounds to enjoy a day at the shore.

Unfortunately, Sandy Hook has experienced a serious shortfall in funding. Like many National Parks, Gateway Sandy Hook is forced to rely on line item spending appropriated through Congress. Therefore, I am requesting funding for the following projects necessary for the continued improvement of Gateway Sandy Hook. These projects total some $7,7 million for fiscal year 1996, including $4.2 million for park operations.

In addition to operations funding, I am also requesting $1.1 million for construction of the northern bike path as envisioned in Gateway's General Management Plan. Also I urge the Subcommittee to provide $400,000 for planning of the southern bike path. When completed, these trails will connect all major features along the length of Sandy Hook and then join the proposed Bayshore trail, which will run almost half the length of my Congressional district.

I would also ask that the Subcommittee provide $400,000 for preliminary design study of a project to rehabilitate deteriorated utilities at Sandy Hook. According to the Park Service the utility systems on Sandy Hook are antiquated and subject to frequent malfunction. In fact, the Service recently informed me that there are recurrent failures in the electrical system and that existing phone lines are often out of service. Perhaps more significantly, the water distribution system and waste water collection systems contain numerous leaks from old

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faulty lines, include asbestos and lead joints, and do not provide adequate pressure in case of fire fighting.

Sandy Hook also needs work to be done on the its entrance and on the road winding through the park. For planning of these activities, I hope the Subcommittee will seriously consider providing $1.1 million.

Finally, I would ask that the Subcommittee provide $500,000 for planning and development of a proposal to preserve the 62 historic structures within Fort Hancock. The Park Service has envisioned a program that would include raising $65 million through private sector partnerships and I would look forward to reviewing any proposal to rehabilitate and preserve this important historic asset.

I would next like to direct the Subcommittee's attention to a project that is very important to me because it highlights the role my hometown of Long Branch, New Jersey has played in the history of our country. Built in 1879, the Long Branch Historical Museum has had seven United States Presidents, from General Ulysses S. Grant to Woodrow Wilson, worship on the premises of the former church in which it is housed. In addition, other great historical figures have walked its corridors, including George W. Childs, the editor and publisher of the Philadelphia Inquirer and George Pullman, the great inventor of the pullman car. The Museum is a landmark of tradition and historical significance, requiring minimal funding to provide an important snapshot of history for generations to come.

I, therefore, respectfully urge the Subcommittee to give favorable consideration to a $50,000 appropriation for the Church of the Presidents at the Long Branch Historical Museum. This small amount of federal funding would provide necessary monies to match private contributions to rehabilitate the building, including structural support and roof repair. Since the Museum is listed on the National Historic Registry, funding for the project is authorized pursuant to 16 USC Sec. 462(f).

Although I am not requesting any funding for land acquisition for my district under the Land and Water Conservation fund in FY '96, I would like to urge the Subcommittee to support the highest possible funding level for the program in the coming fiscal year. I would also like to make my colleagues aware that I am still working with the Fish and Wildlife Service on ways to protect the Dismal Swamp in Edison, New Jersey and may request funding next year for this project. The Dismal Swamp is a significant wetland habitat located in a very densely populated portion of my district. But because this habitat is so unique to this portion of my district, my constituents and I believe it is worthy of federal assistance to help protect it from mounting development pressure.

My next request involves a relatively small amount of funding, but it would go along way toward ensuring that New Jersey could participate in a number of the National Biological

Survey's (NBS) research initiatives. Currently, New Jersey is one of only five states that do not contain a National Biological Survey Cooperative Research Unit. This has hindered the ability of my state to participate in many research activities.

Rutgers, New Jersey's state university, which is located in my district, is ideally suited to designation as a NBS Cooperative Research Unit. I hope that the Subcommittee will give its most serious consideration to designating Rutgers as a cooperative unit and provide $25,000 for the unit's establishment.

Finally, and most importantly, I request that the Subcommittee continue to prohibit the Department of the Interior from expending any funds for any activities related to a Mid-Atlantic Coast offshore oil and gas lease sale including the preparation or conduct of preleasing and leasing activities including but not limited to calls for information.

I am a strong opponent of oil and gas drilling off the coast of New Jersey with its sensitive ecosystem. New Jersey's marine environment has suffered enough over the years: sewage sludge dumping, illegal medical waste disposal, and the dumping of dioxin laden dredged sediments. In the summer of 1988 alone, New Jersey lost some $800 million as a result of coastal environmental problems.

Finally, however, the public is beginning to believe our coast is becoming cleaner. A recent survey by the New Jersey Environmental Federation showed that residents of my state are becoming more confident of the quality of our marine environment. But oil and gas drilling can only have a negative impact in the marine waters off of New Jersey and the tourism our coast attracts.

This issue is very important to me and you may remember, the very first piece of legislation I introduced after being sworn in to my first term as a Member of the House of Representatives was legislation to block any Department of Interior expenditures for offshore oil and gas drilling along the Jersey Coast. Each year since then the Subcommittee has supported a moratorium on all activities, including all preliminary steps, that would in any way shape or form promote drilling off shore of the Mid-Atlantic coast. I strongly urge the Subcommittee to reaffirm its support for that moratorium by including the necessary language in the Fiscal Year 1996 Interior Appropriations legislation.

Thank you, Mr. Chairman, Mr. Yates, and members of the Subcommittee for your consideration of my requests and your kind assistance in years past. I look forward to working with the Subcommittee on these and other important proposals throughout the 104th Congress.

[The statement of Mr. Bryant follows:]

REMARKS OF THE HONORABLE JOHN BRYANT
BEFORE THE APPROPRIATIONS COMMITTEE'S
SUBCOMMITTEE ON THE INTERIOR
March 29, 1995

MR. CHAIRMAN: I appreciate this opportunity to testify on issues concerning appropriations for the U.S. Forest Service.

There is much discussion in the current Congress about how to responsibly reduce federal spending in order to balance the budget.

I am here to urge that the Interior Subcommittee include language in the fiscal year 1996 Appropriations Bill to allow no appropriation for new decisions on timber sales in any national forest that has been suffering a net loss in timber sales, when all true costs of growing and selling trees are counted.

I further urge that the Subcommittee restrict K-V and Salvage Fund retentions by the Forest Service for fiscal year 1996 to zero.

The Forest Service and other federal agencies continue to lose hundreds of millions of dollars on money-losing timber sales on our national forests in order to pay out hundreds of millions of dollars for unneeded and often environmentally devastating forest management practices. The Forest Service actually encourages clearcutting on our national lands instead of the use of the more cost efficient logging method--selection management--which is also far less harmful to the environment.

The Forest Service admits to losing money on more than half the national forests in the country. But the Service counts as benefits a number of expenditures that by normal accounting methods would be counted as costs, including road-building, payments made to counties and school districts in lieu of taxes, and costs of replanting the next generation of trees. When all the true costs of growing and selling trees are counted, according to Bob Wolf, the Forest Service has been losing approximately $300 million per year.

If the Taylor timber salvage amendment to the recently-passed Rescission bill is enacted into law and funded, U.S. taxpayers will lose even more. The Wilderness Society estimated that the Taylor rider will cost the Forest Service an additional $336 million.

Indeed, salvage sales almost always lose money. More importantly, such sales damage local timber economies by dumping a large volume of trees on the market, depressing the prices for sale of other timber, both federal and private.

Finally, heavy salvage--which Taylor's 3 billion board feet-a-year mandate certainly would be--is a form of clearcutting. It leaves a small minority of trees, or none at all, and invariably removes healthy but unprofitable trees along with those infested by insects or disease.

In addition, roughly $250 million a year that could go into the federal treasury is retained by the Forest Service in the Knutsen-Vandenberg Trust and is spent primarily on unnecessary forest management practices.

As this Committee is aware, under the Knutsen-Vandenberg Act of 1930 (KV), the Forest Service is allowed to keep money from gross timber receipts, outside the normal appropriations process, to cover their costs of bulldozing what vegetation is left after logging, planting young trees, eliminating less profitable hardwoods, and digging ponds or conducting more thinnings for deer.

But the site preparation and replanting operations would be unnecessary if the Forest Service used a more cost-efficient selection management system of logging. Under selection management, individual trees are marked and cut here and there in the forest, but no area is ever completely cleared. Sunlight entering the modest opening where a tree is cut stimulates natural regeneration, avoiding the high, up-front costs of revegetating a larger cut-over area.

The original purpose of KV was to provide funds for reforesting cutover lands that the federal government was then adding to the national forest system. Those plantings were completed decades ago. Now the presence of KV funds encourages the Forest Service to clearcut or seedtree cut or use other forms of even-age logging, because bulldozing and planting an area gives them an excuse to keep KV subsidies.

Eliminating or restricting the amount of KV funds the Forest Service could retain would encourage the Service to use the more cost-efficient selection management system, which would not only save federal dollars but also mean a better managed--healthier--forest.

A simple change, requiring that the monies be retained out of net receipts rather than gross, would discourage sales that lose money.

The same is true for the Salvage Fund as with KV. When the Forest Service conducts a salvage sale, they keep much of the money to spend on preparation of further salvage sales.

I have long been an advocate of ending clearcutting and other even-age logging practices on national forests for the simple reasons that even-age management--clearcutting--destroys native biological diversity; dramatically increases erosion, the loss of soil nutrients and stream siltation; reduces recreational opportunities; and increased carbon releases to the atmosphere, thereby exacerbating the greenhouse effect.

Selection management, by contrast, can maintain native wildlife habitats and avoid environmental destruction. Although these values are more difficult to quantify than the timber base, they have an extremely high economic benefit to Americans.

The fact is, this Committee has the opportunity to save money for the federal treasury AND to improve the health of our federal forests in the future. Limiting the Forest Service's budget-padding opportunities under the K-V Act and through salvage sales would save taxpayers millions and encourage logging practices that are not only more cost-efficient, but also environmentally sound.

Thank you for the opportunity to present these views.

[The statement of Mr. Johnston of Florida follows:]

Testimony of Congressman Harry Johnston
Subcommittee on Interior Appropriations
March 29, 1995

Mr. Chairman, I appreciate this opportunity to express the Florida Delegation's concerns regarding Outer Continental Shelf (OCS) oil and gas activities in the Eastern Gulf of Mexico, and to support the Department of Interior's (DOI) South Florida restoration initiative. While I regret that I cannot deliver these comments in person, I would appreciate your including the following statement as part of the record.

On the issue of oil and gas activities in the Florida OCS, I am very pleased to note that in his fiscal 1996 budget, the President again has supported the restriction of these pursuits in the region south of 26 degrees north latitude and east of 86 degrees west longitude, and that he again has asked for the continuation of leasing and pre-leasing moratoria for the Eastern Gulf of Mexico north of 26 degrees north latitude.

However, I still believe that a long-term OCS/energy policy is necessary. Therefore, my colleague Porter Goss and I have re-introduced H.R. 72 and H.R. 73. H.R. 72 provides for a pause in new leasing and drilling in the Eastern Gulf of Mexico, so that scientific studies that have specifically been requested by the State of Florida can be completed. A joint federal-state task force would then review these studies, and could recommend steps to fill in remaining gaps in our understanding of the potential impact of such activities. Once the task force determines that we have developed an adequate scientific base, it would recommend which activities could safely take place in the Eastern Gulf region. This provides a long-term strategy for safe and environmentally sound development of the natural resources in the OCS -- development guided by the best scientific knowledge available.

Floridians oppose offshore oil drilling for a number of reasons, but primarily because of its inherent threat to our state's greatest natural and economic resource: our coastal and marine environment. Florida's beaches, fisheries, and wildlife draw millions of visitors each year. Tourism, one of our largest industries, supports millions of jobs and generates billions of dollars of revenue for our state. Our coastline boasts some of the richest esturaine areas in the world. It is dreadful to imagine the potential devastation that could be caused by even a relatively small oil spill. I ask that the Subcommittee again extend the one-year moratoria on OCS leasing and pre-leasing activities.

Florida's history attests to the dangers of uninformed development in a complex natural system. As you know, in the last eighty years Southern Florida has undergone extensive development, particularly with the draining of marshlands to accommodate agricultural and urban land uses, and the development of a the Central and South Florida Flood Control Project (C&SF), which constructed nearly 800 miles of levees and 500 miles of canals. Severe ecological problems have also been created by rapid population growth.

The Everglades ecosystem is the lifeblood of the State of Florida, beginning in the headwaters of the Kissimmee River near Orlando, flowing through Lake Okeechobee and the "river of grass," and into Florida Bay. But Everglades National Park is now so starved for water that it is the most endangered park in the National Park system. In addition, nutrient pollution from the Everglades Agricultural Area is changing the biological nature of these wetlands. Exotic plant species such as the melaleuca tree are spreading through the Everglades at an alarming rate, soaking up the scarce available water and crowding out indigenous species. Florida Bay, one of the world's best sport and commercial fisheries, has become a dead zone choked by algae blooms. The coral reefs of the Florida Keys are in danger due to the high salinity of the water.

A healthy Everglades is an imperative for Florida. The Everglades system provides cleansing fresh water to the Florida Bay, helps recharge the Biscayne Aquifer, and supplies irrigation water for agriculture. Everglades National Park is home to over four hundred species of birds and fourteen endangered species, such as the American crocodile and the Florida Panther.

Last year, the Department of Interior made great progress towards South Florida ecological restoration by coordinating the efforts of the federal interagency task force. This year, the DOI plans to build upon these efforts, and is requesting $63.9 for the work at hand.

In addition, as part of the Federal, State and local partnership restoration effort, the South Florida Water Management District is experimenting with modified water deliveries to East Everglades National Park (C-111). As I have described, construction of the C&SF project has caused significant hydrological imbalance and greatly reduced sheet flow to Shark River Slough, the dominant hydrologic feature in the eastern part of Everglades National Park. The Everglades National Park Protection and Expansion Act authorizes structural and operational modification to the C&SF project to restore natural hydrological conditions and enhance the natural resources of Shark River Slough. The proposed plan will alter the timing, volume and location of water deliveries to Shark River Slough. I hope the Subcommittee will favorably consider DOI's request for $4,600,000 in FY96.

I would like to take this opportunity to reiterate the point that the State of Florida, primarily through the South Florida Water Management District, is providing at least half of the cost share for the Army Corps of Engineers projects necessary to the overall restoration effort. The State also continues to fund acquisition of ecologically critical land areas through the Preservation 2000 program, among others. Preservation 2000 accounts for $300 million per year in such land purchases that benefit the Park, national wildlife refuges, and national marine sanctuaries. Yet federal participation is vital in the ongoing restoration efforts being undertaken, such as the partnership arrangement with the State of Florida to purchase specific land adjacent to Everglades National Park. This will provide both a buffer and transition between Park resources and the agricultural and urban areas adjacent to the Park, and will facilitate more natural water flows south to Florida Bay.

Last but equally important, I strongly support continuing a solid level of funding for national parks and preserves, national wildlife refuges, and national forests in the State of Florida for fiscal year 1996. National wildlife refuges -- "ecosystem banks" -- serve an ecologically significant function and require continued funding to protect threatened or endangered species and unique habitats.

I greatly appreciate the Subcommittee's support of Florida's interior requests in the past and urge your continued support for our national parks and preserves, wildlife refuges, and marine resources. Many thanks for your attention to Florida's needs.

Harry Johnston

Harry Johnston, M.C.

[The statement of Mr. Rogers follows:]

STATEMENT SUBMITTED BY MR. ROGERS

SUBCOMMITTEE ON INTERIOR

MARCH 29, 1995

U.S. Fish and Wildlife Service: $300,000 in FY 1996 for continued operation of the Wolf Creek National Fish Hatchery in Russell County, Kentucky.

I would like to first thank the gentleman from Ohio, Chairman Regula, for permitting me to submit this statement in support of the Wolf Creek National Fish Hatchery located in Russell Springs, Kentucky. I would also ask the committee's indulgence for not being able to testify in person, but my responsibilities as Chairman of the Subcommittee on Commerce Justice State and the Judiciary prevent me from doing so. Finally, I am grateful that my colleague Congressman Whitfield is able to be before your subcommittee today.

In regards to the issue at hand, President Clinton's FY 1996 budget request proposes to transfer the operation and maintenance of the Wolf Creek Fishery to the State of Kentucky. And while other states may desire this transfer of responsibility, it is my understanding that such a transfer would be an excessive burden for the Kentucky Department of Fish and Wildlife.

Although this resource is not in my district, many of my constituents and people from across the State of Kentucky and the country fish here and enjoy its surroundings. In 1994 alone, the Wolf Creek National Fishery attracted between 70,000 and 100,000 tourists for recreation, education and fishing contests. Wolf Creek is truly a national resource and should be preserved as such.

Therefore, I would respectfully request that when the Subcommittee on Interior begins formulating the FY 1996 Appropriations bill, you could include funding for continued federal operation of the Wolf Creek National Fish Hatchery. I look forward to working with you and this subcommittee on this important issue as the year progresses.

Again, Mr. Chairman, thank you for this opportunity.

Mr. REGULA. The committee is now adjourned.

[COMMITTEE NOTE.—Several Members of Congress were unable to attend the hearing to present their statements. Those statements follow:]

STATEMENT OF CONGRESSMAN PAT ROBERTS REGARDING FY96 FUNDING FOR FWS AND WATER MANAGEMENT STUDIES AT THE QUIVIRA NATIONAL WILDLIFE REFUGE AND THE ASSOCIATED BASIN

REQUEST: $1,360,000 FY 96

Before the House Appropriations Subcommittee on Interior

March 29, 1995

Mr. Chairman and members of the subcommittee, I appreciate having this opportunity to appear before your subcommittee to discuss a cooperative effort initiated by WaterPACK between environmentalists, agricultural producers, municipalities, and federal/state officials concerned about the future of the Quivira National Wildlife Refuge. Appearing with me today is Bill Roenbaugh, a member of the Water Protection Association.

The Water Protection Association of Central Kansas, more commonly known as WaterPACK, was established as a nonprofit organization focusing on water issues, among them the efforts to ensure the future of Quivira National Wildlife Refuge and resolve issues of competing and conflicting water rights in the area surrounding the refuge. The region in question lies exclusively within my congressional district, the Kansas First District.

The Quivira National Wildlife Refuge has an appropriated surface water permit from the Rattlesnake Creek. The water source experiences severe fluctuations in stream flows causing the refuge to have too much water at times and not enough during other periods. This fluctuation in water supply has jeopardized wildlife management in one of our nation's most important waterfowl reserves, threatening both migratory and resident wildlife populations.

Surrounding the Quivira National Wildlife Refuge is a large region of agricultural production settled with residents who share a unique concern for the future and protection of this refuge. Many of these producers farm irrigated acreage and hold appropriated groundwater rights from a shallow alluvial aquifer, the Great Bend Prairie Aquifer, underlying this region of Kansas. During dry seasons, these water rights become increasingly important to both agricultural producers and the refuge and must be appropriately managed to ensure efficient and effective use of water. When high demand for water is generated from both the refuge and agricultural producers, the two parties begin directly competing for existing water in the region.

WaterPACK has focused on these water issues through a coalition of agricultural, municipal, wildlife, and environmental interests striving to enhance understanding of the water resources in the area, their use, conservation and improved management. In this regard, the coalition is seeking $1.360 million in additional funding for the Fish and Wildlife Service to begin Phase I of a two phase effort to study water resources in the region. Additional state funding for FY 95 of $350,000 has been earmarked by the State of Kansas for the water management plan for the Rattlesnake Sub-basin. The federal funding would allow completion of a comprehensive study to identify the existing situation, possible options and solutions to protect and utilize valuable water resources.

The WaterPACK effort intends to increase understanding of the regional water supply. Secondly, and most importantly, this funding would determine priorities and alternatives for management. Enhancing the management of the existing water resources are key to any longterm protection plan for the future of the refuge. In addition, WaterPACK will continue its efforts with non-federal funding to respond to other various water issues facing the region.

I would like to call the subcommittee's attention to the formal partnership that has been formed between the U.S. Fish and Wildlife Service, the Kansas Division of Water Resources, the local Groundwater Management district and WaterPACK. This partnership provides the basis for coordination between federal, state, and local agencies. The partnership includes a commitment by all of the partners to determine a basin-wide solution specifically including the on-refuge water requirements of the Quivira National Wildlife Refuge. Inclusion of the paramount regulatory agency for water in Kansas, the Division of Water Resources, assures that the solutions and options provided by these joint studies will be utilized in the administration of water in the Rattlesnake Basin. The funds requested FY 96 are the federal share of the total funds required for this project.

The subcommittee has been provided a more detailed description and outline of the proposal. I appreciate the subcommittee's time and willingness to allow us to appear. If there are any questions, we are available to respond to the best of our abilities.

--end--

WATER PACK
WATER Protection Association of Central Kansas
Box 97 316 348-3175
Macksville, Kansas 67557

QUIVIRA PROJECT FEDERAL FUNDING REQUEST FOR FISCAL YEAR 1996

The Quivira Project Coalition is requesting the appropriation of $760,000 for the U.S. Department of Interior, Fish & Wildlife Service Quivira Project. This funding is the federal component of a joint effort between the State of Kansas, the local Groundwater Management District, and U.S. Fish & Wildlife Service to study water efficiency and storage options at the Quivira National Wildlife Refuge.

PHASE I

	On and Off Refuge
Feasibility Studies, Modeling, Determine Alternatives	
Storage and Improved Conveyance	$ 460,000
Groundwater in NW corner of Refuge	$ 300,000
Total	$ 760,000
Engineering Design (To be funded in subsequent fiscal year)	$ 600,000

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COMMITTEES
NATIONAL SECURITY
SUBCOMMITTEES
RANKING MINORITY MILITARY INSTALLATIONS AND FACILITIES
MILITARY RESEARCH AND DEVELOPMENT
MORALE, WELFARE AND RECREATION PANEL

NATURAL RESOURCES
SUBCOMMITTEES
ENERGY AND MINERAL RESOURCES
FISHERIES, WILDLIFE AND OCEANS

Written Testimony of
Congressman Solomon P. Ortiz
before the Appropriations
Subcommittee on Interior
March 29, 1995

Mr. Chairman and Members of this Subcommittee, thank you for the opportunity to submit testimony regarding my support for the Lower Rio Grande Valley National Wildlife Refuge (LRGVNWR). I also thank you for the support this Subcommittee has given this important wildlife refuge over the past years.

The President's FY 1996 request for this refuge is $3,052,000, which will be used to purchase 3,350 acres. To date, Congress has appropriated $73,496,000 for this project and 67,675 acres have been acquired for the LRGVNWR. According to the U.S. Fish and Wildlife Service, the LRGVNWR is their fourth most important land acquisition project in the country.

This Refuge was approved by Congress in 1979, and first funded in FY 1980. The four county area is home to over 1100 species of plants, over 700 species of vertebrates with some 400 species of birds, and an estimated 330 species of butterflies. This area of the country contains some of the highest biodiversity in the entire country for an area its size. Two major migratory flyways converge over the southern tip of Texas -- the Central and the Mississippi Flyways. The result is an incredible diversity of bird life, including those which overwinter here, those which layover here during fall and spring migrations, and others which can be found nowhere else in the United States. The temperate, subtropic, and desert climatic influences converge here to create a wide variety of habitats.

There is concern that with the current growth in population and industrialization along the border, the opportunity to incorporate the remaining land and that completion of the Lower Rio Grande Valley National Wildlife Refuge will become impossible. For this reason, I ask the Committee to appropriate $3,052,000 for FY 1996 for land acquisition to accelerate completion of the refuge. This is the a top land acquisition priority of the U.S. Fish and Wildlife Service and deserves your support.

Thank you Mr. Chairman, for your time and your consideration of this request.

STATEMENT OF THE HONORABLE JAMES L. OBERSTAR

OF MINNESOTA

THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON THE INTERIOR

April 6, 1995

MR. OBERSTAR: MR. CHAIRMAN, Members of the Subcommittee, I am pleased to once again have the opportunity to request appropriations for natural resources and Native American programs of critical importance to my district and the State of Minnesota.

I. NATIONAL PARK SERVICE

Grand Portage National Monument

For many years now, the Subcommittee has heard me make the strong case for construction of a visitors' center at Grand Portage National Monument. The existing Information Center at Grand Portage is woefully inadequate to deal with the burgeoning number of visitors to this premier site for the interpretation of fur trade history. The plans include an information center, an exhibit gallery, an extensive artifacts display, a library, an audio/visual presentation center and administrative areas. Each year of delay in construction of the planned facility increases the ultimate cost of the facility. **I ask that the Subcommittee provide $3.65 million for construction of a long-overdue visitors center at Grand Portage National Monument.**

II. BUREAU OF INDIAN AFFAIRS

Fond du Lac Ojibway School

I have testified in the past to the deplorable condition of facilities at the Fond du Lac Ojibway School. Sadly, Fond du Lac children are still attending classes in a combination of temporary trailers and an adapted prefabricated agricultural building in violation of all applicable building codes and BIA space guidelines. Only the most makeshift of repairs have kept the structures even remotely fit for occupation.

Fond du Lac has proposed entering into a lease agreement with the Department of the Interior as a contract under the Self-Determination Act. This would allow the Band to borrow the funds necessary for construction of the new school on the open market and meet the debt service through the contract obligation. **I ask that the Subcommittee direct the Department of the Interior to amend the Fond du Lac Band's P.L. 100-297 school grant agreement to include a line item for debt service and further provide $787,000 to meet that initial obligation.**

Fond du Lac Tribal and Community College

Lack of residential housing are barriers to attracting Indian students to their own communities to attend tribal colleges. Tribal colleges are educating their communities and are economic development catalysts, addressing training needs and cultural and language preservation, and they are slowly developing our tribal infrastructure. Tribal colleges need to find ways to bring their citizens home to be educated. They cannot afford to have their brightest and most talented human resources leave. **I request that the College receive $1.5 million in federal appropriations to augment its existing housing plans. The total cost of the project is $6 million and the federal money will be augmented with State and private financing.**

Minnesota Chippewa Tribe

I request the Subcommittee to appropriate $50,000 natural resource management and research funding to each Reservation of the Tribe and to the Minnesota Chippewa Tribe Research Lab. These funds will be used to retain professional management staff for each Reservation's Natural Resource Program, to analyze fish tissue for PCBs, and to better protect the health and welfare of Tribal consumers. The tribes have a natural resource base of 1,972,426 acres which is composed of 777,629 acres of forested lands, 557,067 acres of surface water, 380,339 acres of wetlands and 617 stream miles. **I ask the Subcommittee to support $350,000 in natural resource management funding for the Minnesota Chippewa Tribe.**

Leech Lake Band of Chippewa Indians

In the 1970's the Leech Lake Band purchased the Leech Lake Sanitary Landfill and operated it as a tribal venture in order to insure continuity of solid waste disposal services to Indians and non-Indians in their region. The landfill has now reached capacity and the band must close the facility in an environmentally sound manner. Although the Band made provisions for covering closing costs during the operation of the landfill, new state and federal regulations on landfill closure and monitoring have increased the costs of closure well beyond the Band's ability to pay. **I strongly support the Leech Lake Band's request that the Subcommittee provide $800,000 through the Indian Health Service to permit the Band to close the Leech Lake Sanitary Landfill in a manner that will ensure environmental integrity.**

1854 Authority

I, and the people of Minnesota, are very appreciative of the Subcommittee's support in the past years for the 1854 Authority. That support has allowed the peaceful and mutually productive management of natural resources in the northeastern Minnesota lands ceded by the Chippewa in the Treaty of 1854. The funding provided by the Subcommittee to date has allowed the 1854 Treaty bands to develop the administrative, enforcement and judicial structure necessary to effectively regulate their members' off-reservation rights. The 1854 Authority's funding request for Fiscal Year 1995 will both maintain that structure and allow the bands to expand the biological services capabilities required to fully participate with state and federal agencies in true co-management of the 1854 ceded territory. I **respectfully request the Subcommittee's continued support of the 1854 Authority. The Authority has identified the need for $382,870 to allow implementation of the long range resource management plans based on sound biological data for the protection of natural resources within the 1854 ceded territory.**

III. U.S. BUREAU OF MINES

Minerals are the building blocks of modern industrial society. Our mining industry must have the most efficient extraction, processing and refining technologies possible to lower the minerals trade deficit, and without the Bureau of Mines and a coherent national minerals policy our economy will be hurt, and we will be limited in our ability to compete in the global marketplace.

Research has been the key to keeping our iron ore mining industry competitive. The Bureau has a long tradition of innovation that have advanced the state of the art in mining and minerals processing, creating new industries, revitalizing old ones, and in some cases saving industries that have been threatened with extinction due to economic or regulatory constraints. The U.S. Bureau of Mines has cooperated with the private sector to establish a coherent, cohesive effort to keep the mining and processing of Minnesota ores ahead of the state-of-the-art and to keep our region economically competitive. Should funding be drastically reduced, it will eliminate a program that has created more jobs and generated more tax revenue every year than any other governmental initiative on behalf of the mining, minerals and metal industry.

Mr. Chairman, this concludes my admittedly long list of funding requests for FY96. I understand the severe fiscal constraints under which you must work this year, and I greatly appreciate your past support of the natural resources and Indian programs benefitting Minnesota and the nation. Your continued support will allow proper stewardship and preservation of the abundant natural resources of northeastern Minnesota.

PATSY T. MINK
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COMMITTEE ON STEERING
AND POLICY

COMMITTEE ON BUDGET

COMMITTEE ON EDUCATION
AND LABOR

Subcommittees:
Elementary, Secondary & Vocational Education
Postsecondary Education
Labor Management Relations

COMMITTEE ON NATURAL RESOURCES

COMMITTEE ON GOVERNMENT OPERATIONS
(on leave)

STATEMENT BY REPRESENTATIVE PATSY T. MINK (D-HI)
APPROPRIATIONS COMMITTEE, INTERIOR SUBCOMMITTEE
KAI MALINO RANCH ACQUISITION, ISLAND OF HAWAII
March 29, 1995

Chair Ralph Regula and Members of the Subcommittee:

The only remaining tropical rainforest in the United States – severely threatened forestland in Kona on the Big Island, State of Hawaii – has been designated by the Fish & Wildlife Service as this fiscal year's top national priority for acquisition. The President's FY96 budget has included $7 million for acquisition of these forestlands at Kai Malino Ranch. I ask the Subcommittee to approve the acquisition of the ranch and ensure that this purchase is completed.

Acquisition of these lands presents an excellent demonstration of a cooperative partnership between the federal government and private property owners toward natural resource conservation. The current Kai Malino Ranch owners have had the forestland in their family for generations, but they now wish to sell, in order to pay a $4 million inheritance tax debt. Rather than process and market the valuable koa wood to offset this debt, ranch owners would like the federal government to buy the lands to conserve the precious natural habitat and unique species living in the rainforest, as part of a national wildlife refuge.

Acquisition of Kai Malino is necessary for the long-term protection of several of Hawaii's threatened and endangered bird species, especially the endangered Hawaiian crow, or *'alala*. Fish & Wildlife and the Peregrine Fund have been working together for years to save the crow from extinction, and their coordinated efforts have focused on Kai Malino which is the only land remaining where crows live in the wild.

I cannot emphasize enough how the recovery of this species is crucial for my State. Three-fourths of all national extinctions have occurred in Hawaii, and 40% of the current national list of endangered bird species are Hawaiian species. My State has undergone radical changes as species became scarce or disappeared, and Hawaii's ecosystems have endured significant disruption.

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The federal government is guaranteed a bargain in this situation. The ranch lands to be acquired have been appraised at $8.3 million, of which the landowners have decided to donate $1.3 million to the wildlife refuge. Interest continues to accrue on the inheritance tax debt at a rate of $800/day and has increased to nearly $4 million, which would be paid back to the government in full in addition to capital gains taxes.

This purchase would help to preserve one of our most unique natural resources in the country's last remaining rainforests. I urge the Members of this Subcommittee to give approval to this proposal to acquire Kai Malino Ranch.

Patsy T. Mink

STATEMENT OF THE HONORABLE DON YOUNG
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
B308 RAYBURN HOB
April 12, 1995

Mr. Chairman, it is indeed an honor to submit written testimony with regard to Alaska Native and Department of Interior programs within the Interior Appropriations bill to my friends on this distinguished Subcommittee.

Alaska Native Programs

Indian Health Service

Mr. Chairman, since Congress amended the Indian Self Determination Act last year, the Indian Health Service (IHS) has entered into Self-Governance Compacts with tribes. This was in response to tribal leaders desire to have more control of their own health care delivery programs and resources. The tribes entered into "Compacts" with the IHS to set their own priorities and designs for their own health care delivery system. Alaska entered into an "All-Alaska Compact" with the IHS last year and I fully support their funding for their fiscal year 1996 budget. Compacting has provided a more direct and improved service to Alaska Natives and has greatly reduced the administrative costs of having the IHS administer these services. I fully support the appropriations within the IHS's Self-Governance Compact fund to continue funding for the "All-Alaska Compact".

I greatly appreciate the funding allocated for the staffing of the Alaska Native Medical Center in Anchorage, Alaska which is scheduled for completion in 1996 and for staff positions at the Kotzebue hospital in Kotzebue, Alaska. These two facilities needed to be replaced and I fully support the appropriation of $3,312 million for the Alaska Native Medical Center in Anchorage, Alaska and the appropriations of $840,00 for the Kotzebue hospital. I urge my colleagues on this Subcommittee to approve these appropriations to provide much needed staff to these two facilities.

The Alaska Native Health Board, the Norton Sound Health Corporation, the Bristol Bay Area Health Corporation and the Maniilaq Association all support the IHS's increased budget of $2.06 billion however, feel very strongly that there continues to be unmet needs in Alaska in contract support costs, sanitation facilities and other construction needs, and in patient travel costs. I concur and support the views of these groups and urge this Subcommittee to respectfully provide appropriations to fully fund contract support costs, appropriate $133 million annually to fully fund the IHS ten-year plan to address sanitation facilities needs nationwide, and to appropriate additional funds for patient travel.

Reports have stated that Alaska has an identified unmet sanitation need exceeding $1 billion. This is based on the non-existence of water and sewer facilities in more than 85% of the rural villages in Alaska. As one of the leading nations of the world, our 49th state should not be experiencing such third world conditions.

Patient travel is an expensive cost which Alaska much incur each year due to the geographic and non-existent of an interstate road system in the state. Rural Alaska natives must travel to regional centers or to the Alaska Native Medical Center in Anchorage, Alaska when they require additional medical care and the only transportation available is air travel. Many patients forego care until an easily treatable condition has become a full-blown emergency. I respectfully urge this Subcommittee to review the IHS's budget to include a separate appropriation for patient travel costs in Alaska.

Lastly, I support the $1,397,000 for the Hepatitis B Immunization program in Alaska. The program has proven successful since it began in 1982 when Hepatitis B was at an all time risk factor in rural Alaska. I urge my colleagues to continue this successful program in eradicating the presence of Hepatitis B in Alaska.

Bureau of Indian Affairs

Alaska Legal Services Corporation

Mr. Chairman, you know I rarely support any project with attorneys involved; however, I strongly feel that the representation Alaska Legal Services Corporation (ALSC) provides for people who cannot afford their own attorneys is justified. In the past, the Alaska Legal Services Corporation has contracted with the Bureau of Indian Affairs to represent Alaska Native allottees at administrative hearings and government contests with Native Allotment land disputes. I want to again support the efforts of Alaska Legal Services Corporation to resolve some of these land disputes. ALSC is requesting $250,000 to provide legal services for Native allottees and I fully support this effort. I respectfully ask that this Subcommittee fund their request.

Bering Sea Fishermen's Association

Last year, the Committee on Appropriations included an additional $800,000 within the Bureau of Indian Affairs (BIA) FY95 budget to address the Chum Salmon fishery disaster in the Arctic-Yukon-Kuskokwim areas of Alaska . Bering Sea Fishermen's Association (BSFA) submitted a grant proposal to the BIA and was awarded grant funding to address the chum salmon fishery disaster for one of the four regions they represent. BSFA, on behalf of all of their membership is requesting $1,000,000 to conduct salmon research and restoration projects in western Alaska and Interior river systems. I support their request for $1,000,000 to refocus the Western Alaska Salmon Investigations Program as intended by the 1994 appropriations for the chum salmon disaster and restoration funding. I respectfully urge this Subcommittee to honor their request to help fund fisheries development in economically deprived regions of my state.

Mr. Chairman, once again I urge the Subcommittee to renew the moratorium on development of North Aleutian Basin Sale 92 leases near Bristol Bay. As you know, the people of Alaska and especially the fishermen and Alaska Natives who rely on the Bay's resources, have consistently opposed any OCS development in the region. Bristol Bay and the Alaska Peninsula support the largest sockeye salmon fisheries in the world as well as multimillion dollar groundfish and shellfish fisheries for pollock, cod, halibut, sole, crab and other species. All told, the commercial fisheries have an average annual first wholesale value approaching $1 billion dollars and employ more than 10,000 Americans. The area of the Sale 92 Leases is also in the heart of major migration, staging and feeding area for numerous marine mammals, seabirds and waterfowl. In summation, the commercial and intrinsic value of the region's marine life is too great to put at risk for the small amount of estimated recoverable oil reserves in the North Aleutian Basin.

Mr. Chairman, I have received numerous requests from my constituents in Alaska; however, I did want to briefly outline the most urgent appropriations requests. You have heard me state the importance of these requests -- the IHS All-Alaska Compact with Alaska tribes, the Alaska Native Medical Center in Anchorage, the Kotzebue hospital in Kotzebue, Alaska, the Alaska Legal Services Native Allotment representation, funding to develop and improve a fisheries in the more economically deprived regions in my state and the continuance of the moratorium of the North Aleutian Basin Sale 92. Additionally, I am briefly listing the requests I have received from Alaska and ask this committee to consider each of these requests.

Lastly, I would like to add my support to the Institute of American Indian and Alaska Native Arts for their appropriations request. They are continuing in their efforts towards a move to their own campus. I support these efforts and respectfully ask that this Subcommittee honor their appropriations request.

Alaska Native Health Board

1. Full funding of Contract Support Costs
2. Community Health Aide Program - support National Approps.
   $46,273,000 Million

Metlakatla Indian Community

1.	Indian Health Services Clinic design	$523,000
2.	Indian Health Service Staff Quarters design	$380,000
3.	Indian Health Service Dental Services	$140,000
4.	Natural Resources programs	$1.6 million

Alaska Sea Otter Commission

1.	Program continuance	$122,500

Bristol Bay Area Health Corporation

Hospital Repairs

1.	Additional Space and Remodeling	$3,000,000
2.	New Hospital Roof Replacement	$1,600,000

Demonstration Project

3.	Community Health Aide Training Center in Dillingham	$1,500,000

Norton Sound Health Corporation

1. Replacement or renovation of North Sound Regional Hospital (no FY96 funds requested-seeking private funds to borrow).

Tlingit and Haida Central Council

1. Bill language proposed for the Bureau of Indian Affairs, Operation of Indian Programs, Appropriations bill: "**Provided further,** That funds otherwise available for grants to small and needy tribes under the provisions of the Indian Self-Determination Act or the Small and Needy Tribes Distribution request shall be distributed in equal amounts to small tribes to the extent those tribes' Tribal Priority Allocations fall below the minimum base threshold needed to maintain an effective tribal government organization, as noted in the Joint Task Force Report (April 1994), including such small tribes who are served by a Self-Governance Compact, and not upon the basis of "competitive" applications judged by the Bureau of Indian Affairs".

Chugach Regional Resources Commission

1.	Chugach Fisheries Development Program	$525,000

Maniilaq Association

1.	Kotzebue Hospital staffing and operation	$2,100,000

Department of Interior Programs

Bureau of Mines, Minerals Management Service and United States Geological Survey

I want to express my support for the continued presence of these agencies in Alaska. Their functions are critical to future economic development in Alaska and the nation.

National Endowment for the Arts
FY 1996 Funding

Testimony of Rep. Amo Houghton
March 29, 1995
Appropriations Committee
Subcommittee on Interior

Good morning, Mr. Chairman. Thank you for the opportunity to once again testify before your subcommittee.

I want to strongly support continued funding of the National Endowment for the Arts. I call your attention to the recent defeat of the Stearns Amendment, which would have cut an additional $10 million from the previously reduced NEA budget. The action of the House on that matter amply illustrates the widespread congressional support of NEA, even in the face of our current fiscal challenges.

The relatively small number of federal dollars which go to support the NEA are a fiscally sound and culturally critical investment in America. Each federal dollar invested by NEA can leverage up to eleven times its value in private contributions. The NEA stamp of approval is the economic linchpin in a public-private partnership that sponsors vital community projects.

NEA-supported music, theatre, art and dance projects educate and inspire the citizens of small, rural towns of every state in the Nation. I fear that in our zeal to trim costs we may cut too deeply and inflict serious injury to the very soul of our great country.

Some suggest that the commercial marketplace can replace the NEA and its sister agency, the National Endowment for the Humanities. Let me quote the accomplished documentary producer Ken Burns, who appeared with me at your February hearing on this topic.

"The marketplace does not save the old papers of a founding father, it doesn't fund research into that which enriches our heritage -- not necessarily our pocketbooks or what is fashionable at the moment, and it does not fund the local poetry reading, or dance recital, or symphony group, or lecture on great books that take place daily from Maine to California.

Neither, Burns added, does the NEA build the weapons necessary for the defense of our country: "I know that they just make our country worth defending."

As the committee continues its important work, I urge you to fully support the important work of the NEA. Thank you.

Statement by

Congressman Richard H. Baker

to the House Appropriations Committee

Subcommittee on Interior

March 29, 1995

Thank you Mr. Chairman for holding this hearing to explore the merits of various priorities within the Subcommittee's jurisdiction. I appreciate this opportunity to voice my support for the $149,000 appropriation request for the Mississippi River National Heritage Corridor Study Commission for fiscal year 1996. Let me make several points about this Study Commission.

First, this is a project which Congress authorized with Public Law 101-398. The Study Commission's purpose is specific and well-defined: the law directs the Study Commission to investigate the feasibility of creating a national heritage corridor down the Mississippi River, and develop a plan for promoting and enhancing the unique natural, recreational, and economic resources of the region. The ultimate purpose of the Commission is to develop the partnerships along the Mississippi River valley that will allow the ten states to address key river issues in a coordinated manner.

Second, after studying the Draft Final Feasibility Report recently completed by the Commission, it is evident that the proposed corridor designation would involve no land acquisition, no restrictive federal regulation, and no adverse impact on private property rights of those landowners along the River. The Study Commission shares the commitment of the majority in Congress for strong protections of property rights, and they will include a recommendation in the Final Report to encourage Congress to adopt the necessary property rights protections should Congress ultimately authorize the creation of this heritage corridor. It is not the desire of the Study Commission to impose any restrictions on the use of private property. This appropriation request will give the Study Commission the opportunity to fully communicate this message to the citizens of each of the Mississippi River states by holding a series of ten public hearings.

Thus, this appropriation request will allow the Study Commission to conduct the series of public hearings, incorporate public comment, and print the final report. The Study Commission will end 90 days after the final report is submitted to Congress. This appropriation request is vital to the timely completion of the Study of the most nationally significant heritage area under consideration in the United States. Let me also point out that this appropriation is included in President Clinton's FY1996 budget request. Again, I appreciate the opportunity to express my support to this Subcommittee for the funding of this Study Commission so that it may complete the work the Congress has authorized it to do.

KIKA DE LA GARZA
15TH DISTRICT TEXAS

Congress of the United States
House of Representatives
Washington, DC 20515-4315

Statement By
E (Kika) de la Garza
before
Subcommittee on Interior & Related Agencies
Committee on Appropriations

29 March 1995

Mr Chairman, this is to present my testimony in support of the Rio Grande Valley National Wildlife Corridor Refuge for which the Administration has requested $3,052,000 in its Fiscal Year '96 budget.

For those Members who are new let me take a moment to say a bit about the corridor. The Lower Rio Grande Valley, four counties at the southern tip of Texas, contains a diversity of flora and fauna found nowhere else in the United States within such a compact area. Totaling only three million acres, the Valley is situated at the crossroads of four climatic zones and on two major migratory flyways. The resulting eleven currently identified biotic communities, each with its own distinct association of plants and animals, produce a natural legacy including more than 1200 species of plants, 700 vertebrates, and 330 types of butterflies. Over 450 species of birds have been documented here including many neotropical birds which can be seen nowhere else in the country. Four species of wild cats roam the river corridors including the elusive and endangered ocelot and jaguarundi. Nowhere else in the country can such biodiversity be found in such a small area.

As I think is evident, the refuge is indeed a very special place, and one that I believe we as a nation have a responsibility to preserve and protect. That is why your continued support is so crucial.

Sixteen years ago the Lower Rio Grande Valley National Wildlife Refuge was just a vision to preserve a large part of the immense biological diversity which exists at the southern tip of the Texas-Mexico border. Today that vision, as a result of the committee's past support and leadership, is halfway to completion, with some 74,181 acres of native habitat currently under federal protection and management. All along the Rio Grande corridor, from the still plentiful brushlands of Starr County to the tidal flats at the mouth of the river in Cameron County, and northwards to the salt lakes of Willacy and Hidalgo Counties, the rich natural heritage of South Texas is being preserved for future generations. That is what we have achieved with past appropriations.

Since its inception in 1979, our wildlife corridor refuge has been a role model of cooperation at the federal, state and local levels and has maintained strong national and local support. It has always ranked among the top priority refuges of the U S Fish and Wildlife Service because of the immense number of species it seeks to protect.

Something I want to point out and which I think is very positive is that although more than 50 of the wildlife species protected by this refuge are threatened or endangered we have, by working together, been able to avoid any of the endangered species conflicts that have plagued other parts of the country. In South Texas we know, as your efforts to help us complete the corridor refuge have shown, that preserving enough habitat for our wildlife heritage is exactly what it takes to keep species from getting into an endangered status in the first place.

When we look back and see the Wildlife Corridor completed we will know that we have done our very best as a nation to make certain that no more species will be lost, and that many will be removed from being endangered because they are once again more plentiful. That is indeed a wonderful legacy to pass on to our children and grandchildren.

In recent years we have faced a slow down in the momentum of funding. This has led to the loss of precious habitat. For example, in 1994, a 1500 acre tract including floodplain and riparian brush was lost to the refuge because of a lack of immediate available funds. Other important habitat areas are similarly fated to be sold for other than wildlife related uses up and down the Valley. Each time an opportunity is lost the original goal of the refuge -- linking refuge tracts into a contiguous corridor system -- becomes less of a possibility.

There are ever-increasing pressures on land usage in the Texas-Mexico border region. Population and industrial growth are increasing vehicular traffic and accelerating prime farm land and wildlife habitat conversion to other uses. If we are to continue to get the most value for our dollar, which we must in this time of fiscal responsibility, then completion of this refuge as soon as possible must be a priority. Right now land prices in the region remain stable and reasonable. There are also many willing sellers. That is why now is the time to move forward to try and complete the refuge as soon as possible. Doing so will give us the wisest use of our precious federal dollars.

As Members are aware, the Fish & Wildlife Service originally submitted a budget request of $9,200,000 for project land acquisition in FY 96. The reason for my mentioning this is because an appropriation of this level would add 8300 acres to the refuge in the current fiscal year. This figure accounts for tracts already surveyed, appraised and ready for purchase from willing sellers. For the sake of clarification I should add that the Fish & Wildlife Service estimates an additional 31,478 acres could be appraised if this higher level of funding was forthcoming -- a request which I hope the committee will consider.

It is my sincere hope that this testimony will evidence how good an investment the Rio Grande Valley National Wildlife Refuge has been as well as to give you and your fellow Committee Members an overall knowledge of what we have been able to achieve with past appropriations. It is also my hope I have been able to adequately convey what remains to be done and what we can only accomplish with your continued support.

Truly what we need, Mr Chairman, is to be funded at the minimum level of $3,052,000 as recommended in the FY '96 budget.

Thank you for your consideration of this request, and for your assistance in helping to see this work continue to go forward.

# # #

TESTIMONY OF REPRESENTATIVE GEORGE RADANOVICH
SUBCOMMITTEE ON INTERIOR
HOUSE APPROPRIATIONS COMMITTEE
MARCH 30, 1995

My district includes most of Yosemite National Park and many of its gateway communities. The future of these communities is linked to that of the Park since Yosemite's reputation generates tourism, the primary business of the immediate Yosemite region.

Yosemite is one of our nation's treasures. Its resources merit protection, and its more than 4 million annual visitors deserve the best experience possible.

For these reasons, I am supporting the following requests of the National Park Service for appropriations for Yosemite for FY 1996:

-- An operations budget of $18.3 million. The Park budget is currently stretched thin. With visitation increasing every year, this amount is the very least needed to fill the necessary functions of the National Park Service.

-- An appropriation of $9.65 million for one of the final phases of the project to move the warehouse, maintenance facilities, and shops out of Yosemite Valley to the community of El Portal. The placing of the activities outside of the Park will contribute to healthy economic development in the gateway communities, enabling employees to live and work outside of the Park. This phase consists of constructing a shop building attached to the vehicle maintenance building.

-- An appropriation of $3.96 million for housing for Park employees in El Portal. These funds will go toward constructing houses as well as roads and utility and water lines to serve them.

-- An appropriation of $3 million for rehabilitating underground electrical lines in Yosemite Valley. These funds will be provided for the completion of this project.

-- An appropriation of $400,000 to replace two trailers at Hodgon Meadow with a duplex in the northern part of the park.

TESTIMONY OF PUBLIC WITNESSES FOR ENERGY PROGRAMS, MINING AND GEOLOGY PROGRAMS, ARTS, HUMANITIES, AND MUSEUM PROGRAMS

FRIDAY, MARCH 24, 1995.

U.S. BUREAU OF MINES

WITNESSES

JAMES L. HENDRIX, CHAIRMAN, MINERAL RESOURCES, NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND GRANT COLLEGES

RICHARD BAJURA, NATIONAL RESEARCH CENTER FOR COAL AND ENERGY

Mr. REGULA. We will get started. We have a very full schedule today and I am going to have to be pretty rigid on the five minutes otherwise we will get way behind. So I hope that each of you will submit your testimony, which will be made part of the record and the staff will examine it. In the meantime, summarize so we can stay on our schedule. You saw it on the door so you know it is a toughie.

Okay, first witnesses will be the National Association of State Universities and Land Grant Colleges, and I understand that you are going to come together; is that correct?

Mr. HENDRIX. Yes, sir.

Mr. REGULA. Then you have got a little extra time. Oh, you are sharing five minutes. Okay, sorry about that.

Mr. HENDRIX. We are sharing five minutes.

Mr. REGULA. As I said, all the statements will be made part of the record and we would appreciate it if you would summarize.

Mr. HENDRIX. I am Jim Hendrix, Dean of the Mackey School of Mines, University of Nevada, and I represent the NASULGC and also the National Association of Mineral Institute Directors.

The reason that we are here today is to seek your support to keep the academic community as a portion of the supply of basic research that is needed to guarantee the good stewardship of the minerals industry.

The areas of research has been delineated by the United States Bureau of Mines' planning documents and they include environmental remediation, pollution prevention and control, and health and safety. For the academic community to stay as a partner in this endeavor, continued financial support for—of the existing mechanisms is important.

We have at this time four generic research technology centers that have been singled out by the Bureau for incorporation in their program. This is respirable dust, land mine reclamation, mine systems design, and minerals industry waste treatment.

These four centers have the existing apparatuses to access at least 31 State universities in 31 States through the MMRI Institute program. Each of these four centers has a record of success and has a mechanism for industry, academic and Bureau of Mines cooperation.

If we do not have financial support to the academic part of this partnership, the thing that will happen is the body of knowledge in the centers of excellence which incubate it will disappear. If that happens, there will be a loss to the Nation for another generation because minerals research is not a high profile interest field, but that doesn't mean that it is not important to the American good.

We are asking the same support in fiscal year 1996 that was given in fiscal year 1995 of $6.2 million.

[The statement of Mr. Hendrix follows:]

NASULGC National Association of State Universities and Land-Grant Colleges

TESTIMONY

of
Jim Hendrix and Richard Bajura
representing
National Association of State Universities and Land-Grant Colleges
and
USBM Generic Technology Centers

submitted to

House Appropriations Committee on Interior and Related Agencies
March 24, 1995

Programs of the USBM Generic Technology Centers

We are testifying today to request your continued support for the programs of the Generic Technology Centers which have been designated by the United States Bureau of Mines as those which should be incorporated into their research endeavors as outlined in the "Reinventing the US Bureau of Mines" study. Continued support of the Bureau's programs and the Generic Technology Centers will ensure development of new knowledge that will maintain the nation's investment in minerals research and technology development.

We recommend that FY96 funds of $6.2 million be appropriated to continue the work of the Generic Technology Centers at the level authorized in the FY95 budget.

Reinventing the USBM

In the USBM's planning document, "Reinventing the USBM", specific recommendations were made regarding the Mineral Institutes program. The recommendations included the following points:

* Allotment grants are no longer necessary

* Research of the institutes should be more closely coordinated with the research program of the USBM

* Reclamation and waste treatment and recovery generic centers programs should be integrated into the USBM environmental technology program

* Respirable dust and mine systems design and ground control program should become part of the USBM health and safety research program

* The funding for the Generic Mineral Technology Centers should be reduced to $5.5 million and integrated into the new Environmental Remediation ($1.3), Pollution Prevention and Control ($2.1), and Health and Safety ($2.1) programs.

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In the budget statement offered by the Administration, the four Generic Mineral Technology Centers: Mine Systems Design and Ground Control, Mineral Industry Waste Treatment and Recovery, Respirable Dust, and National Mine Land Reclamation Center have been specifically designated to be incorporated into the Bureau of Mines research program. Unfortunately, and to our concern, at the same time the Administration advocates eliminating funding for the generic centers, including the four designated for inclusion into the Bureau's research program. For the past 14 years the federal-academic partnership for research in the important fields described in the Reinventing the USBM planning document has been nearly exclusively done through the Generic Technology Centers program. If this partnership is dissolved there is no replacement on the horizon.

Value of University Generic Technology Centers and USBM Cooperation

University Generic Technology Centers are capable of assisting in the kinds of basic research described in the comprehensive plan of the USBM at a lower cost, using the existing university laboratory facilities, which are quite similar to those found in USBM laboratories. Universities subsidize research in several ways because research is an important part of their mission. Faculty generally do not charge their time to research projects except during the summer. Students work for low wages. Overhead rates are low, usually less than 50 percent, because research projects do not carry the full burden of industry overhead costs. There is a tendency to think of the education as only supporting graduate education, but it is a fact that faculty in these disciplines cannot be attracted or retained in a university culture unless they conduct research. Without research funds, there will not be any faculty, undergraduate education, or production of bachelor degree engineers and scientists in these disciplines.

Supporting these academic programs at an adequate level is needed to meet national requirements for continuing the mining and basic materials industries. Graduates in these disciplines find employment throughout the nation and often do not remain in the state where they were educated. Given this geographical dispersal and because the states pay the primary cost of education, it is reasonable for the federal government to share at least some of the cost of educating these engineers and scientists for the nation. There are also advantages in centralizing research in almost all engineering scientific fields and, indeed, that is what is done in the United States as the federal government has become the primary sponsor of university research.

Since many of the mining and minerals companies have discontinued their corporate research laboratories during the past 15 years, most of the basic research so desperately needed by the nation so that the minerals industry may continue to be competitive without harming the environment is being done by the scientists and engineers at the USBM and a few remaining universities committed to minerals industries education and scholarship. If by chance, these centers of excellence are discontinued, the nation will be void of any ability to continue to develop the knowledge required. The Generic Technology Centers and the appropriate centers within the USBM represent focal points for the concentration of expertise to continue the generation of ideas and technologies that will help the minerals industries in the beginning of the twenty first century.

The Centers

The Generic Center Technology Center for Respirable dust brings expertise in medical science, mining technology, access to the mining industry, and instrumentation and measurements capabilities which complement instead of duplicate the expertise of the Bureau. Researchers at the Center have shown that some particulate components in the dust stream, such as quartz, may affect the severity of the disease. These results may explain why different mines have different health risks while the weight of the dust loading in the air may be the same.

Both the Bureau of Mines personnel and researchers in the Generic Technology Center for Ground Control and Mine Systems Design focus on reducing accidents and making the underground environment safe for workers. Because of the participation of a set of geographically diverse universities, the Generic Technology Center is developing two main thrusts: one related to coal mining and the other is hard rock mining which is becoming more and more prominent in the western United States.

The National Mine Land Reclamation Center has developed new reclamation technologies. This Center works closely with the Bureau, the Office of Surface Mining, and a broad base of industrial organizations which not only advise but also provide matching support for reclamation technology and clean-up operations.

The Generic Technology Center for Minerals Industry Waste Treatment and Recovery provides advanced concepts on pollution prevention and control which address problems relevant to mining operations in our western states. The basic research conducted at the Center has been so highly valued by the minerals industry that a significant portion of the Center's budget is funded by the minerals industry for support of applied research devoted to pollution control and environmental remediation.

Concluding Remarks

The areas of Health & Safety Research, Environmental Remediation, and Pollution Prevention and Control identified by the Bureau are national priority areas. The four Generic Technology Centers mentioned in the Bureau's planning documents are strongly oriented toward these priorities. Each enter has a solid record of accomplishments and has been favorably reviewed by the USBM Advisory Committee on a regular basis. The continued success of growing a knowledge base, training students and practitioners, and the technology transfer in these important areas is dependent on federal-academic-industrial partnerships.

Therefore, we request that the four generic technology centers be funded at the FY95 level of $6.2 million in FY96.

Thank you.

Mr. REGULA. Do you have comments that you would like to add?

Mr. BAJURA. George Fumich sends his regards. He wasn't able to make it today. He has coauthored some of my testimony.

I endorse the comments that Jim has presented. We would certainly welcome continued support for the generic centers at the level Jim recommended, at $6.2 million. We believe we are working in relevant areas and we are contributing both in technology transfer and industrial support. I close my comments.

[The statement of Mr. Bajura follows:]

National Research Center for Coal and Energy
West Virginia University

Testimony

of
Richard Bajura and George Fumich
National Research Center for Coal and Energy

submitted to
House Appropriations Committee on Interior and Related Agencies
March 24, 1995

Programs of U.S. Bureau of Mines

We are testifying today to request your continued support for the programs of the US Bureau of Mines and for the Generic Technology Centers which work in cooperation with the Bureau as part of our nation's investment in minerals research and technology development.

We recommend that funding at or near the FY95 level be appropriated to enable the USBM to carry out its research plan. We further recommend that the FY96 appropriation include $6.2 million to continue the work of the Generic Technology Centers at the level authorized in the FY95 budget.

USBM Program Planning

As part of its careful two year study on "Reinventing the US Bureau of Mines," the Bureau advanced a plan for its future programs which highlighted three areas of emphasis: (1) Health and Safety Research; (2) Environmental Remediation; and, (3) Pollution Prevention and Control. Four of the seven Generic Technology Centers organized under the Mineral Research Institutes program were also made integral parts of this plan to help ensure the relevance of the Bureau's programs to the user community.

As the time approaches to fully implement the reorganization plans, we note that the Bureau has been recommended for an appropriation of only $132.5 million for FY 1996, a decrease of $19.9 million from FY 1995. We are even more concerned that in its proposed budget for FY 1996, the Administration advocates eliminating funding for the Generic Center teams which have contributed for many years to making significant advances in the three technology areas upon which the Bureau will focus its future efforts.

In the comments below, we will highlight some of the accomplishments of the Bureau in the three areas of emphasis and describe how the Generic Technology Centers have contributed to accomplishing the goals of these programs. We believe the need remains to continue the work of the Bureau and the Generic Technology Centers in view of the environmental and health & safety challenges which face our mining industry and our workers.

Health and Safety Research

In focusing on Health and Safety Research, the Bureau wants to solve the problems that make mining among the most hazardous of occupations. The USBM has placed a special focus on combating respirable dust, which is the mineworkers' number one health problem costing industry and the federal government billions of dollars each year for health care and workers compensation costs.

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Federal involvement in health and safety research is necessary. Many of our nation's mines are operated by small companies which can not afford the high cost of research needed to ensure the safety of miners.

Consider respirable dust hazards in the mine. "Black Lung" disease is caused by breathing too much coal mine dust. Between the years of 1969 and 1990, the number of miners (55,467) whose cause of death was listed as "Black Lung" approaches the number of Americans (58,000) who died in the Vietnam War.

The Coal Mine Health and Safety Act of 1969 legislated reduced dust exposure levels for coal miners and established a compensation fund for affected miners and their families. In 1993, the total of "Black Lung" compensation claims was $1.3 billion, a substantial sum of money!

The Bureau has developed new dust control technologies which have reduced the levels of exposure significantly. Review committees from the National Academy of Engineering have called the Bureau's work "outstanding" and a "major technological contribution."

The *Generic Technology Center for Respirable Dust* brings expertise in medical science, mining technology, access to the mining industry, and instrumentation and measurements capabilities which complement instead of duplicate the expertise of the Bureau. Researchers at the Center have shown that some particulate components in the dust stream, such as quartz, may affect the severity of the disease. These results may explain why different mines have different health risks while the weight of the dust loading in the air may be the same. Progress must also be made on finding ways to reverse the damage done to a miner's lungs by inhaling respirable dust.

Recent studies by the National Institute for Occupational Safety and Health have shown that the disease prevalence is no longer falling. These data indicate the need for further improvements in dust control technology and our understanding about the factors which cause "Black Lung" disease.

The payoff from investments in respirable dust research will be leveraged more than a thousand-fold if we can eliminate this working hazard. Assuming that dust loadings are held at today's levels, estimates have been prepared which show that the cumulative new claim costs between the years 1991 and 2010 will be $1 billion to the federal government and $18.3 billion to the states whose claimants no longer qualify for federal benefits. For example, in 1991, in West Virginia alone the new claim payout for 1,234 miners on black lung disability was $24.7 million. The 1991 total of new claims for all coal mining states has been estimated at $135 million for 6,170 new claimants.

The 1969 Coal Mine Health and Safety Act also brought about increased benefits in terms of reducing work-related accidents thanks to better enforcement of standards and improved technologies resulting from research in mine safety. In 1968, 311 coal miners died while in 1994 the number of deaths was 44. Investments in new mine safety technologies are paying off!

Both the Bureau of Mines personnel and researchers in the *Generic Technology Center for Ground Control and Mine Systems Design* focus on reducing accidents and making the underground environment safe for workers. This improved safety record can be even further enhanced by introducing new safety practices into mining operations.

Environmental Remediation

Water drainage from abandoned mines currently pollutes over 5,000 miles of streams in West Virginia and Pennsylvania alone. There are hundreds of thousands of inactive and abandoned mines on public lands for which remediation of mineral-related waste is required. The cost of much of this remediation falls on federal agencies. New technology must be developed to avoid the high cost of continual treatment with chemicals.

Bureau scientists have pioneered, developed and demonstrated various passive treatment technologies, such as constructed wetlands and anoxic limestone drains that successfully treat mine water discharges. These systems are inexpensive to build and have essentially no operating or maintenance cost.

The *National Mine Land Reclamation Center* also has developed new reclamation technologies. This Center works closely with the Bureau, the Office of Surface Mining, and a broad base of industrial organizations which not only advise but also provide matching support for reclamation technology and clean-up operations.

The cost to federal and state governments for cleaning up mine discharges and remediating mineral-related wastes is extensive. As a gauge for costs, consider that the mining industry spends over $1,000,000 per day in chemical treatment systems for active mines. The cost for operating such treatment systems falls to the federal and state governments for abandoned mines. The application of new technologies can result in considerable savings. For example, for active mines where the cost of new treatment technologies can be compared to previous methods of adding chemicals to the waste water, savings of $400,000 has been estimated for a single site over a twenty year period.

The benefits to be derived from investments in new technology far outweigh the cost for environmental remediation research.

Pollution Prevention and Control

Work under the pollution prevention and control technology area focuses on preventing or controlling environmental damage from present and future mining operations. Technologies are being developed for the long term sustainable development of mineral resources.

A new generation of mining and processing technologies, such as in-situ mineral recovery, biotechnology, and intelligent control are being developed. Examples of current work include the in-situ recovery of copper in Arizona, the identification of the fate of arsenic in bioleaching of gold ores, and the use of color to control and more completely recover metals from solutions.

Recycling and waste minimization technologies are being developed to reduce the environmental impact of residues and effluents that require disposal, to recycle discarded consumer products, to reduce the volume of material going into municipal land fills, and to increase the recyclability of consumer products through better design. Examples of current work in consumer products include household batteries, refrigerators, and electric vehicle battery packs.

The *Generic Technology Center for Waste Treatment* provides advanced concepts on pollution prevention and control which address problems relevant to mining operations in our western states. Strong industrial involvement in the programs of this center attests to the relevance and merit of the work being conducted. Not only has the Waste Treatment Center helped to create a knowledge base regarding pollution prevention and control for the minerals industry, it has provided the human power through graduated students to guarantee the acceptance of such technologies into the private sector.

Given the cost of remediation, investments in pollution prevention and control will forestall the future need for environmental restoration programs.

Contributions from the Generic Technology Centers Programs

Through the networking established by the four Generic Technology Centers, the Bureau has access to the best talent in the 31 Mineral Research Institutes and to the industrial partners who work with these institutes. Academic institutions have a broad base of expertise which the Bureau can not develop due to funding constraints. By relying on this talent base, the Bureau can accomplish its goals while reducing the numbers of FTE personnel as described in its FY 1996 budget overview. Industry also works well with the Generic Technology Center researchers since proprietary secrets can be more readily retained and the regulatory aspects of working with the USBM are not present in industry-generic center relationships.

Continued investment in the Generic Technology Centers program is required to evaluate potential solutions to the long range problems addressed by the Bureau. Current studies with mineworkers require careful monitoring and follow-up in order to evaluate the health effects of exposure or improvements in dust control technology since adverse effects are often only observed long after exposure. Technologies developed for mine land reclamation must be studied over a period of years in order to evaluate the productivity of reclaimed land for future generations.

Several score of graduate students have been supported by their work on projects funded through the Generic Technology Center program. Many of them are currently employed in the industrial sector in positions of responsibility regarding minerals production, environmental remediation, and pollution control. The hiring of graduates is an excellent example of technology transfer from academic research to industrial practice.

Concluding Remarks

The areas of Health & Safety Research, Environmental Remediation, and Pollution Prevention & Control identified by the Bureau are national priority areas. Continued Congressional support for the Bureau is recommended at levels at least as great as in the President's budget.

In view of the rising expenses associated with health care and the magnitude of the clean-up operations required to repair mining damage done to the environment, federal investments in these technology areas will result in greatly reduced long term costs for both the government and private sectors.

The kind of federal-industrial-academic partnerships which occur under programs such as those conducted by the Generic Technology Centers will ensure the relevance of the Bureau's programs to current and future needs. The four Generic Technology Centers are strongly oriented toward the stated goals of the USBM program. Each center has a solid record of accomplishments and has been favorably reviewed by the USBM Advisory Committee on a regular basis.

The work of these four Generic Technology Centers was funded at a level of $6.2 million as part of the USBM budget of $152 million authorized for FY 1995. The work conducted by the centers should be funded at the same level in FY 1996.

Thank you for your consideration.

G. Fumich

Richard A. Bajura, Director George Fumich

regtesrl

Mr. REGULA. I am advised that there is no money in the President's budget for this.

Mr. BAJURA. That is correct.

Mr. REGULA. And we have no idea what we are going to have. We may have 10 percent less this year than last.

Mr. BAJURA. Yes, sir, I understand that.

Mr. REGULA. You have heard what the Budget Committee has said.

Mr. BAJURA. We have read Chairman Calvert's recommendations and of course we know——

Mr. REGULA. So you know it is not going to be easy, but we will take all of these things under consideration. Thank you very much for coming.

FRIDAY, MARCH 24, 1995.

USGS: WATER INSTITUTES

WITNESSES

HENRY J. VAUX, JR., ASSOCIATE VICE PRESIDENT, AGRICULTURE AND NATURAL RESOURCES PROGRAM, NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND GRANT COLLEGES

STEVE GLOSS, PRESIDENT, WYOMING WATER RESOURCES CENTER, NATIONAL INSTITUTES FOR WATER RESOURCES

Mr. REGULA. We have another group, National Association, of State Universities and Land Grant Colleges, Dr. Vaux.

Are you Dr. Gloss?

Mr. GLOSS. Correct.

Mr. REGULA. Your statements will be made part of the record.

Mr. VAUX. Thank you and good morning.

My name is Henry Vaux, and I am Associate Vice President of the University of California system and I appear here on behalf of the National Association of State Universities and Land Grant Colleges in support of an appropriation for the Water Resources Research Institute program.

For fiscal year 1996, we are requesting appropriations of $10 million to fund the State water resources research institutes and a new appropriation of $5 million to initiate a program of research that focuses on interstate water problems and regional water problems.

The modest Federal appropriation which we are requesting for the institute of $10 million provides for core support for a network of 54 water resources research institutes at the land grant universities in each of the 50 States and three trust territories and the District of Columbia. This core funding is matched from other sources in the amount of $11 for every Federal dollar appropriated. And $8 of these $11 come from non-Federal sources, including State and local government and the private sector.

It is the Federal appropriation that allows us to get that matching money, and without the Federal appropriation, the matching money will erode very quickly and the institute program will be lost.

Also, want to point out that none of the federally appropriated money is used for institutional overhead or indirect costs and that we spend less than 9 percent of our total funds on administrative support.

Again, this year we have made careful efforts to document the productivity of our program, and all of that data is reported in my written testimony. Further evidence of the productivity of this program is found in the report of an external committee which conducted a congressionally mandated review of the program last year and gave it very high marks.

The consequences of eliminating the program, as the administration has proposed, are significant. Without the Federal appropriation, we will lose half of the institutes and another 40 percent will refocus their research on more narrowly local and parochial problems, and we will lose the institute of networks which links all of the water resources' researchers and all of the colleges and universities in the country together, plus the dozens of important activities that are undertaken at the individual institutes, such as the Ohio institute which has mounted an important information transfer program to connect the water researchers with the national labs so that the water researchers can assist the national labs as they devise their waste remediation and environmental cleanup efforts.

[The statement of Mr. Vaux follows:]

NASULGC National Association of State Universities and Land-Grant Colleges

Testimony of Henry J. Vaux, Jr.
In Support of Water Resources Research Program

Mr. Chairman, my name is Dr. Henry Vaux. I appear here on behalf of the Section on Water Resources, Board on Natural Resources of the National Association of State Universities and Land-Grant Colleges. I also serve as past-President of the National Institutes for Water Resources and as Associate Vice President for Agriculture and Natural Resources of the University of California System. I want to thank you for the opportunity to testify before your subcommittee.

For fiscal year 1996, Mr. Chairman, the National Institutes for Water Resources and the National Association of State Universities and Land-Grant Colleges seek appropriations of:

- **$10,000,00 to fund research, training, and information transfer activities at the State Water Resources Research Institutes established under the provisions of the Water Resources Research Act;**
- **$5,000,000 to initiate a program of research that focuses on water problems of a regional or interstate nature; and**
- **$250,000 for the U.S. Geological Survey to administer the Water Resources Research Institutes program.**

This year our testimony is in two parts. I will testify in support of an appropriation for the activities established under the Water Resources Research Act (42 U.S.C. 109) and the need for continued funding for the Water Resources Research Institutes while my colleague, Dr. Steven Gloss, who is President of the National Institutes for Water Resources, will explain why Congress should fund regional water research programs envisioned by the authors of the Act.

As you are aware, Mr. Chairman, the Administration has proposed the elimination of the Water Resources Research Institutes Program again this year. They have provided no explanation or justification for this action. We find this very difficult to understand in light of the fact that the Administration supports a $10 million **increase** for internal water resources research to be conducted by federal scientists on the payroll of the U.S. Geological Survey. While we recognize that the federal budget will be very tight this year, we believe that the documented productivity of the Water Resources Research Institutes and the critical importance of a modest federal appropriation in maintaining that productivity amply justifies our requests.

PROGRAM CHARACTERISTICS

The modest federal appropriation which supports activities under Section 104(b) of the Water Resources Research Act provides the core resources for a network of 54 Water Resource Research Institutes at the land grant colleges in each of the 50 states, 3 trust territories and the District of Columbia. This network links faculty and students with interests in water resources at virtually every institution of higher education in the country. These faculty and students are distributed across many disciplines, and the Water Resources Research Institutes are the only entity through which their interests and work on water resources are connected and integrated.

The core federal funding is augmented from other sources to create a program with dollar revenues that are more than eleven times greater than the funds appropriated directly to the program.

- **The fifty four Institutes generated a total of $64,514,353 from all sources to support their activities in FY 1994.**

One measure of program effectiveness is the extent to which federally appropriated dollars attract additional funds, thereby leveraging the basic support provided by the Federal Government. Taken as a whole, the Water Resources Research Institutes Program generated $11 for each federal dollar appropriated. This is far in excess of the legislatively mandated cost share of 2 to 1 and far larger than the matching funds generated by virtually any other federally supported research program.

- **$41,959,273 of this support was generated from non-federal sources.**

The strength of the Water Resources Research Institutes Program is illustrated by the fact that non-federal entities, including state and local government and the private sector provide a majority of the financial support. Non-federal agencies contribute $8 for each dollar appropriated to the program. The large non-federal contribution testifies to the program's reputation for excellence in water research and education as well as to the program's productivity. It is especially noteworthy that the non-federal program support increased by more than $1.4 million in FY 1994.

- **The federal appropriation provides the "legitimacy" that allows the Institutes to attract additional funding.**

If this legitimacy is lost, external funding will erode very rapidly.

- **None of the federally appropriated dollars are used to pay institutional overhead or indirect costs.**

In the aggregate, the Institutes spend only 8.9 percent of their funds in administrative support. Few, if any, comparable federal research programs can boast of administrative costs this low.

PROGRAM ACCOMPLISHMENTS IN FY 1994

Accomplishments in Research and Education

Virtually every research project supported by the Institutes Program involves students. Funds spent by the Institutes on research thus support the training of future water managers and professionals.

- **The Institutes Program supported 801 research projects in FY 1994.**

Nearly two thirds of the Institutes supported projects that were conducted in non-host institutions. This shows how the Institutes network creates ties to all institutions of higher education with expertise in water resources.

- **Institute-sponsored research resulted in over 900 publications in FY 1994 of which 22 percent appeared in peer-reviewed outlets.**

The remainder of the publications include monographs, book chapters, conference proceedings and technical reports. Many of the publications are accessible through the National Technical Information Service.

- **1194 students were trained in water resources under the auspices of the Institutes Program.**

Approximately two-thirds of the students trained were graduate students and the remaining one-third were undergraduates. These students will help to fill the exploding demand for water leaders and professionals to meet the water resources management challenges of the next century.

This record in research and education cannot be sustained without the basic federal program.

Accomplishments in Information Transfer

- **81 percent of the Water Research Institutes published at least one newsletter. An estimated 480,000 copies of these newsletters were distributed in FY 1994.**

- **The Institutes sponsored or cosponsored 130 conferences on water resources in FY 1994.**

These conferences ranged from technical sessions for water researchers to policy conferences focusing on water issues facing a state or region. Estimated attendance at such conferences totaled more than 24,000.

This record in information transfer cannot be sustained without the basic federal program.

CONSEQUENCES OF ELIMINATION OF FUNDING FOR THE WATER RESOURCES RESEARCH INSTITUTES

The objectives of the Water Resources Research Act are even more compelling today than they were when the Act was originally passed. These objectives cannot be attained if the federal program is eliminated.

- **Without a federal appropriation, nearly half of the Institutes will cease to exist altogether. Another 40 percent will be reorganized to emphasize different programmatic foci.**

- **Without a federal appropriation, the Institutes network will cease to exist.**

- **Without a federal appropriation, the broad programmatic focus of the remaining Institutes will disappear as those Institutes focus increasingly on narrow local and sectoral problems.**

In addition, the important activities through which the Institutes help to resolve many of the Nation's real water problems will be significantly diminished. Examples of such activities include:

- **The Ohio Institute has developed a technology transfer service on the information superhighway to transfer technology and information from the Nations' colleges and Universities to the National Laboratories of the Department of Energy to assist the Labs in conducting environmental remediation programs.**

- **The New Mexico Institute is a member of the New Mexico-Texas Water Commission and provides critical technical information which is at the core of efforts to develop a plan for more reliable water supplies for southern New Mexico and the City of El Paso.**

- **The Washington Institute was selected by state agencies, citizens committees and Indian tribes to conduct a water quality study and prepare a water management plan for Lake Roosevelt on the Columbia River.**

- **The Illinois Institute is developing technologies that will permit small communities to meet safe drinking water standards in an affordable fashion.**

These are merely a few of the dozens of activities undertaken by the Institutes with the aid of federal funding. The loss of federal funding means that many, if not all, of these activities will cease to be done by the Institutes. They are jobs that must be done and the Institutes have demonstrated that they can do them more cost-effectively than the private sector or the Federal Government. We believe that the productivity of the Program and the evidence of increasing demand for that program speak convincingly to the need to continue the program.

The U.S. Geological Survey has proposed elimination of funding for the Institutes Program even while supporting an increase of $10 million to support to support its own in-house water research efforts. In a world characterized by increasing competitiveness, there seems little justification for augmenting federal programs which are not collaborative at the expense of the Institutes Program which has a demonstrated record of effective collaboration with water managers and citizens alike.

Mr. Chairman, I appreciate the opportunity to present this testimony. The National Association of State Universities and Land Grant Colleges and the National Institutes for Water Resources are grateful for your past support of our program and we trust that the performance and productivity which I have outlined today fully justifies your continuing support. Thank you very much.

Mr. VAUX. Steve.

Mr. GLOSS. Mr. Chairman, my name is Steven Gloss, and I am President of the National Institutes for Water Resources.

Thank you for the opportunity today. I want to thank you for your past support of the institute program.

What I would like to speak to briefly is what we perceive as the need to strike some balance between federally funded and conducted research in the agency and that similar research conducted by State based institute programs.

There are literally a litany of outside organizations that have looked at this program and have come up with a series of recommendations. They begin in 1991 with the National Academy of Sciences through its Water Science and Technology Board, which recommended that the U.S. Geological Survey strengthen its ties with the university community, find ways to increase funding for the national competitive grants program, and to improve relationships with the institute community. The GS, in response to those recommendations, has systemically sought either elimination or reduction of these programs in deference to its own internal research.

Last year, a congressionally mandated outside panel of experts appointed by the Geological Survey themselves conducted a review of this program. Its findings were extremely laudatory. It, however, expressed significant concern about the funding level that had been made available for the program and feared that the congressional intent of the program was in jeopardy because of a lack of sufficient funding. Again, the survey responded to that report by recommending no funding this year.

Most recently, this committee in its conference report last year with the Senate asked that the Geological Survey and the Department of Interior to look at ways to integrate and make more efficient utilization of the institute programs within the agency to seek ways to look across the program——

[The statement of Mr. Gloss follows:]

National Institutes for Water Resources

TESTIMONY OF DR. STEVEN P. GLOSS ON BEHALF OF THE NATIONAL INSTITUTES FOR WATER RESOURCES SUBMITTED TO THE HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE FOR FISCAL YEAR 1996

Mr. Chairman. My name is Steven Gloss and I am here today to provide additional testimony in behalf of the state-based Water Resources Research Institutes and our associated programs in water resources research, education, and technology/information transfer. I am President of the National Institutes for Water Resources, Director of the Wyoming Water Resources Center and a member of the faculty at the University of Wyoming. I thank you for the opportunity to testify before your committee and for the committee's past support of these programs.

My colleague, Dr. Henry Vaux, has described to you the productive record of accomplishments which the Institute program has established as a result of the direction provided by the Congress and the previous recommendations of this Committee which has sustained funding for the program, often in contrast to the budget recommendations of our administering agency, the U.S. Geological Survey. However, I am not here to disparage the work conducted by the USGS, but rather to suggest that modest appropriations to support the Water Resources Research Institute program would help continue a much needed balance between state-based and federal programs without having any material effect on the in-house programs of the agency.

I wish to ask your consideration of three principal areas in my remarks:

- Why the federal government should continue funding the Water Resources Research Institutes.
- Why the federal government should initiate a program through the Institutes to conduct research of an interstate and regional nature.
- Achieving balance and efficiency in federally funded water resources research and related activities.

A federal appropriation is necessary because:

It assures that all states maintain the capability and expertise needed to solve their own water resources problems rather than relying solely on the federal government and it does so in a manner that allows the states adequate flexibility. The federal funding creates a national network among the states and between their land grant colleges and universities and other research institutions. The network links water resource investigations throughout the nation, thereby eliminating research duplication and ensuring that high priority research topics are addressed. The federal support and interest in this program is an important component of the Institutes' ability to secure non-federal monies to support additional water research and technology transfer activities.

Science to support water management should be focused at least in part at the state level. Water management is generally recognized as a state responsibility. As such, states are in a better position than the federal government to determine the kind of information needed to support water management. Substantial scientific expertise related to water management and critical water-related issues resides in colleges and universities which are state-based institutions. The WRRIs play a pivotal role in that respect.

Each Institute maintains one or more advisory bodies comprised of local, state, and federal water officials, representatives from water user groups, and members of the interested public. Annually, these groups develop research priorities and review the allocation of funds among various competing projects. In this way, Institutes ensure that limited funds are spent on research that addresses the most pressing water problems and issues.

Nearly 20 percent of Institute funding supports information dissemination, technology transfer, and other educational activities which ensure that solutions to water resources problems are transferred to policy makers, water managers, and water users in a timely fashion so that research findings can be implemented most effectively.

A few additional points - Institutes, **using state employees,** conduct important state, regional, and national research while **reducing the size and cost of the federal government.** Institutes provide a research infrastructure through university-based research capabilities. State agencies charged with management responsibilities need--but often do not have--such research capabilities. Institute research is independent, and while under broad administrative guidance is not mandated to follow federal agency agendas or regulatory responsibilities. **The Institute oversight and advisory committees, consisting of state and local officials and members of the public,** serve at no cost to the federal government.

Initiating Regional Research

We believe the tremendous productivity and efficiency established by the Institute program should be extended by providing funds to enable us to deal with important and emerging water issues of a regional or interstate nature. Furthermore, the benefits to the state and nation from funding this kind of work will far exceed that gained by providing a like amount of funding for internal agency research. **Important reasons to initiate this program include:**

- ***Recognition of the changing nature of water resources issues and problems.***

Our water supplies and their quality are increasingly in need of regional and, nearly always, interjurisdictional management. Local communities and even states no longer have the luxury of deciding how and when to provide fresh water supplies for their citizens, their industries and their social well being. Today's water resources decisions must address interjurisdictional impacts, for what each governmental entity does now is more likely than ever to affect its neighbors. In addition, the nation's universities have the interdisciplinary expertise needed to help solve these problems without the addition of more federal employees.

- ***Federal funds are necessary to create a base of support for research on interjurisdictional problems.***

Without federal support, there are virtually no sources of funds available to support the scale of interdisciplinary research and analysis necessary for assessing regional and interstate water resources problems. Because of the interjurisdictional nature of regional and/or interstate water resources problems, there often exists a parochial and competitive reluctance on the part of states and other governmental entities to enter into cooperative ventures for research. Instead, each is likely to be more interested in protecting its own vested interest. However, it is wholly appropriate for the federal government to provide the support base and serve as a catalyst for the type of solution-oriented, problem-solving research toward which this program would be directed.

- ***The research and networking capabilities of the Water Resources Research Institutes are well suited to lead multi- and interdisciplinary programs aimed at providing solutions to complex water issues.***

The network of university-based expertise created by the WRRIs extends beyond the academic community and into the various local, state and federal agencies faced with seeking answers to interjurisdictional issues. Therefore, the Institutes can serve to provide not only the technical expertise needed to offer solutions but can serve as the point of contact to recognize and bring together concerns of all the participating parties across the relevant jurisdictions. Furthermore, the track record of the Institute program in leveraging additional funds beyond the required match suggests that by providing federal funds of $5 million, the Congress could create a program considerably larger than the amount of dollars appropriated. Again, this could be accomplished using the nation's best minds in their respective disciplines without adding to the cost of government.

- ***The future demands not only a continuing stream of qualified engineers, scientists, and policymakers, but requires that these people be trained with more complex interdisciplinary skills.***

Training of water resources professionals has been a hallmark of the research programs conducted by the Institutes. Not only would this new program provide an opportunity to expand the number of students trained, it will most importantly offer training that provides the kinds of skills which will be needed by many future water resource professionals. Unlike funding agency based programs, virtually every research dollar spent on this program has the important added benefit of training.

Mr. Chairman, this committee has an opportunity, by initiating a regional research program through the Water Resources Research Institutes, to increase the efficiency with which the government helps its citizens solve pressing and important economic and environmental issues. It can do so at a net savings to the federal government in contrast to funding similar work through federal agencies. I believe the nation's research universities are anxious to develop the kinds of additional partnerships and linkages that would be provided by this program in the service of the nation. We can do so without adding federal employees.

Balance and Efficiency in Federally Funded Water Resources Research and Related Activities

The National Academy of Sciences, through its Water Science and Technology Board, advocated in 1991 that the USGS seek additional support for the national competitive grants program of the Water Resources Research Act. Instead, the USGS recommended reduction and elimination of the program. The WSTB also recommended that the USGS continue to administer the WRRI's program as an effective means of addressing state and local water resources needs. Instead, the USGS has recommended reduction and now on two occasions the elimination of the WRRIs. The WSTB recommended that the USGS broaden its linkages, interaction with, and use of the nation's university research community. The USGS has responded by reducing its funding to universities and continuing to foster its own internal research programs--those which entitle the federal agency rather than the states to determine the entire research and problem solving agenda.

Last year a panel of outside experts, chosen by the USGS, was appointed to conduct a five year evaluation of the Institute program. The report of that panel was extremely laudatory about the program as a whole, while at the same time suggesting room for improvements. Among their findings reported to the USGS was the following: "There is danger that ... funding is becoming too modest to attain its [the program] goals in a number of states." "...information transfer efforts are being heavily impacted. Those negative impacts will become even more evident unless some means are found to increase the base funding for this program."

Instead, the Interior Department's FY 1996 Budget Briefing Book states: "The [WRRI] program has yielded productive research and education; **USGS has made a difficult decision to eliminate the program in order to maintain in-house research and investigations efforts which address national priorities and needs**" (emphasis added).

Last year as well, Mr. Chairman, your committee in its conference report with the Senate provided the following instruction:

> *"The managers further agree that the Survey should work with the Institutes to ensure the relevancy of Institute research to State and National issues and to examine ways to introduce competition into the distribution of Federal funds among Institutes beginning in fiscal year 1996. The managers also expect the Department to include with its fiscal year 1996 budget submission a report which identifies specific options for integrating the expertise available through the water resources research institutes into the full range of the Department's water resources programs."*

The Institutes, in response to the Committee's request, worked diligently last fall, holding several meetings with the USGS Directorate and other personnel (all at the Institutes' request) to seek ways to address the issues raised by the conference report. Copies of the many suggestions provided by the Institutes in order to help develop the required report were provided to your committee's staff during that process. We were then, and remain, prepared to address any concerns this committee has about the Water Resources Research Institutes. To my knowledge, the agency provided no report to the Congress with their FY 96 budget.

Mr. Chairman, in summary, we view the USGS budget recommendations about the Institute program with concern. However, we are further concerned about the apparent tendency of the USGS, especially the Water Resources Division, to substantially isolate itself from the talents of the nation's academic community. We have seen this most dramatically in the programs authorized under the Water Resources Research Act, where systematic attempts to eliminate these programs have resulted in virtually no formal relationships existing between the agency and the universities. We do not believe this is a healthy situation for the country's premier earth science agency. In fact, it is contrary to recommendations from the National Academy of Sciences and contrary to what many other federal agencies have begun to do more of in recent times: providing for increased competition both within and outside their agencies in an effort to insure that research is necessary and conducted by the best researchers available in the most cost-effective ways for the federal government. We seek your concurrence in recommending $10.0 million for the Water Resources Research Institutes and $5.0 million to initiate a regional research program. Each of these recommendations would contribute significantly to the efficiency of government programs and empowering states both individually and collectively to conduct research, education and information transfer on a vital resource - water.

Mr. Chairman, I appreciate your time and the opportunity to convey this testimony. Thank you for your past support and your consideration today.

Mr. REGULA. We are going to run out of time. Have you been to the authorizing committees?

Mr. GLOSS. Yes, we have, Mr. Chairman.

Mr. REGULA. You are not authorized for 1996, as you probably know.

Mr. GLOSS. We realize the appropriation is not authorized. The program itself has authorization and we are meeting, in fact, this afternoon with the Chairman of the authorizing committee so——

Mr. REGULA. And of course it wasn't in the President's budget but that doesn't mean that it is foreclosed.

Mr. VAUX. And that has become an annual event.

Mr. GLOSS. We appreciate your time and consideration.

Mr. REGULA. Thank you for coming.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY METALS INITIATIVE

WITNESS

BRIAN MARSDEN, AMERICAN IRON AND STEEL INSTITUTE

Mr. REGULA. Next the American Iron and Steel Institute, Mr. Marsden.

Mr. MARSDEN. Mr. Chairman, good morning. I am Brian Marsden, Chairman and CEO of Acme Metals, and I am here representing the American Iron and Steel Institute and its 45 members, who produce——

Mr. REGULA. As Chairman of the Steel Caucus, I am very familiar with you.

Mr. MARSDEN. I am here this morning to ask for your continued support in your fiscal 1996 budget for two programs which are of great value to the future competitiveness, the energy efficiency, and the improved environmental performance of our industry.

First program is the advanced process control program, which is a—in the third year of a five-year program. We have six projects which are designed to measure the operating parameters of the process, measure the product before it is finally produced so that we get exactly what the customer needs. It will make us very—more competitive. It will make us more energy efficient and of course it will be environmentally sounder as a result of these six projects.

The six projects are moving along very well, and in this fiscal year we would expect to move from the laboratory testing stage out into the plants, into the host plants with three of the six projects.

Mr. REGULA. Do these have matching funds?

Mr. MARSDEN. Yes. These are funded 70 percent by DOE, 30 percent by industry participants. There are 13.

Mr. REGULA. Could industry raise its share?

Mr. MARSDEN. I think it would be somewhat difficult to do that.

Mr. REGULA. Well, we are going to be short of money. If you have been reading the newspapers, you are aware of what is happening budget-wise.

Mr. MARSDEN. I understand, Mr. Chairman.

Mr. REGULA. We find that as much as possible matching programs are useful because it helps to extend what we can do, and clean coal, as you know, is a 50/50, and in reality it is 60/40 because of the industry participation, 60 private.

Mr. MARSDEN. The second project I am going to talk about, Mr. Chairman, is a matching fund situation, and this is the waste recycling smelting program, which is an outcome of the direct steelmaking program which was started in 1989. And the direct steelmaking program, which you are probably familiar with, was a program to direct smelt iron ore pellets with coal, bypassing the brass furnace and the coke ovens, thereby in an economic and environmentally efficient way, reducing the capital costs, reducing the energy requirements, and having a very environmentally benign program.

That program was completed in May 1993 to that stage and we did not have all the answers, but what emerged from that program was that the—this process at the pilot plant stage was ideally suited for smelting waste oxides. And waste oxides, the industry generates 3 to 4 million tons of waste oxides a year which now go into landfills. The—so a pilot plant program was initiated with DOE support and funding, partial funding.

Mr. REGULA. You have got about one minute, Jim.

Mr. MARSDEN. Okay. And it was completed in December, 1994. The next phase is to go ahead and build—which was originally—to build a demonstration plant which will be 50 percent funded by DOE, 50 percent funded by industry. This was not included in the 1996 fiscal budget.

Mr. REGULA. By the President?

Mr. MARSDEN. The President. But we are preparing the proposal to DOE which will be submitted in April. We have their full support for this pilot plant—this demonstration plant which will be a three-year project. At the end of the three-year period, the host company would buy the demonstration plant from the project and of course there would be ensuing royalties and patent know how and patent rights from the project and DOE would be refunded 150 percent. We are looking for $16.5 million——

[The statement of Mr. Marsden follows:]

TESTIMONY ON BEHALF OF THE AMERICAN IRON AND STEEL INSTITUTE BEFORE THE SUBCOMMITTEE ON INTERIOR OF THE HOUSE COMMITTEE ON APPROPRIATIONS

March 24, 1995

by Brian W. H. Marsden, Chairman and CEO, Acme Steel Company

Mr. Chairman and members of the Committee, thank you for this opportunity to present testimony to you today. My name is Brian Marsden and I am the Chairman and CEO of Acme Steel Company in Chicago. I am here today to represent the 45 member companies of the American Iron and Steel Institute who account for over two-thirds of the raw steel which is being produced within the United States. My purpose is to seek your continued support, in the 1996 Department of Energy budget, for two programs of great value to our future competitiveness, energy efficiency, and improved environmental performance created under the Steel and Aluminum Energy and Conservation Competitiveness Act of 1988. Those programs are called the Advanced Process Control Program and the Waste Recycling Demonstration Pogram. The funding requirements for FY 1996 are estimated to be $4.369 million for the Advanced Process Control Program with a 70% DOE cost share, and $16.5 million for the Waste Recycling Demonstration Program with a 50% DOE cost share.

Advanced Process Control Program

America has invested heavily in high technology research for defense and other purposes. Some of the results from this investment can be utilized to accomplish our vision of the energy efficient, environmentally friendly steel plant of the future through the Advanced Process Control Program. Initiated in May, 1993, this $23 million, five-year program is being funded by 15 AISI member companies with a 70% DOE cost share. It includes six sensor and control system research projects, described in Table 1, which are designed to develop technology which will "see, hear, and feel" the steelmaking processes. The ability to determine product properties on-line will allow steelmakers to achieve product quality in the most energy efficient manner and to bridge the gap between today's technology and the steel industry of the future.

Each project is sponsored by a specific participating company which has accepted the responsibility to host production trials of the developed technology and to promote general implementation. In addition to universities and industrial research organizations, Sandia National Laboratory , Oak Ridge National Laboratory, and the National Institutes for Standards & Technology are each involved in one project.

This year, several production-scale sensors will be tested in operating plants. In addition, inquiries are being received about these sensors from outside the steel industry, and we believe that their diverse applicability will create substantial opportunities for other industries, in addition to satisfying the needs of the steel industry. Throughout all manufacturing, more powerful process control will improve product quality, energy efficiency, the environment, and overall competitiveness.

Waste Recycling Demonstration Program

The other program, which is fundamental to our future vision, is aimed at producing hot metal in an energy efficient manner for steelmaking directly from coal and iron ore pellets, without incurring the high capital costs and the environmental problems associated with traditional coke oven and blast furnace technology.

In earlier testimony, AISI representatives described the Direct Steelmaking Program. That five-year, $60 million program, completed in March, 1994, researched energy efficient and environmentally friendly technology to replace the blast furnace/coke oven process. As it becomes necessary to replace present capacity, we believe that this new technology, fortified with additional knowledge gained from processing steel plant waste oxides, will be favored because of substantially reduced capital costs. Also, it should be as much as 25% more energy efficient and 10% lower in operating cost than the blast furnace/coke oven process it would replace. AISI has established the Steel Technology Corporation to license the technology, promote commercialization, and provide the payback to the government as required in the Metals Initiative legislation.

In the hope that this new technology might be implemented without waiting until present ironmaking capacity needs to be replaced, a nine-month, $8.5 million program with 30% industry cost share was commenced in April, 1994, to research the production of hot metal from recycled steel plant waste oxides. This extension of the earlier program was sufficiently attractive in terms of economics, energy conservation and environmental improvements that it received strong support from DOE. These trials, completed in December, 1994, were highly successful, and it was decided to proceed immediately with a feasibility study for a demonstration plant producing 250,000 tons per year of hot metal from 500,000 tons per year of waste oxides. We are in the process of completing this study this month, and we plan to submit a proposal to DOE in April, 1995, based on 50% industry cost share. The rising cost of landfill disposal, the value of the hot metal which will be produced by smelting these waste oxides, and the overall environmental improvement argue strongly for this next step.

In addition to AISI member companies, four major oxygen producers and other suppliers have elected to support this feasibility study. If this study results in a successful proposal to DOE, this AISI technology will be demonstrated on a variety of materials, including iron ore fines, pellets, waste oxides, and electric furnace dusts with a variety of reductants, including high volatile coal and coke breeze. Currently, on a dry basis, the industry produces three to four million tons of potentially recoverable waste oxides. Most of this potentially valuable material is being stockpiled or landfilled because existing processes can not deal with it in an environmentally acceptable manner.

Before making myself available to answer your questions, Mr. Chairman, I do want to address two we have repeatedly heard as we have done our preparatory work on this issue:

1. Isn't this Waste Recycling Demonstration Program a "new start," that is, a previously unfunded project trying to boost itself onto the federal R&D inventory for the first time?

2. Why should the U.S. taxpayer help fund a demonstration project to be sited in Canada?

As to the first question, the answer is easily found in the workproduct of this Sbcommittee over the past five fiscal years. Beginning in FY89, there has been an unbroken series of DOE appropriations representing the faith of the Congress and the Department in the promise of Direct Steelmaking and its R&D successor, Waste Recycling. As the chart appended to our testimony indicates, entering upon the Waste Recycling Demonstration phase of this long-standing undertaking will be the culmination of years of collaborative public/private effort. To discontinue this project at this point critical to its full success would be to forfeit the earlier commitment and resources. The chart also indicates how the program has been funded at a 70% DOE and 30% AISI level, but the demonstration project will be funded on a 50/50 cost share, in recognition of budgetary restraints.

As to the second question, some of even the strongest supporters for this important collaborative effort have raised questions about the choice of a site for the demonstration plant on the Canadian side of Lake Erie (Stelco's Lake Erie Works). However, Stelco is an AISI member and there are many reasons why this has been judged to be the best location, not the least of which is that there is an immediate need for additional hot metal there, as well as a company willing to host the program provided that it is managed by AISI.

Since this important work was initiated in 1988, following a worldwide survey of developments in this area of technology, the DOE has accepted that, in order to achieve our objective, the program could not be entirely confined to the United States. Early investigations which posed a substantial threat to ongoing production were hosted by DOFASCO, another member company of AISI located in Canada. The major part of the fundamental research was done at Carnegie Mellon University and at the Massachusetts Institute of Technology, but important work was contracted to Canadian universities. The vast majority of the pilot plant work was completed in Pittsburgh with the American scientists who will be in charge of the technical work in Canada. However, a critical component for the ultimate process, i.e. prereduction, was piloted by a member company in Mexico, HYLSA, an acknowledged world leader in this branch of technology.

I hasten to assure you that the willingness of the DOE to allow the AISI to utilize member company resources outside of the United States has substantially contributed to the fact that we have arrived at the point of demonstration ahead of our overseas competition and at less than half their cost. As always, timing is the key to success, and I urge you not to slow down our forward momentum because of concerns regarding location for this demonstration. The American Iron and Steel Institute was constituted as a hemispheric organization long before NAFTA became a reality. A North American approach to steelmaking developments has served the interests of the United States well on numerous occasions. The Canadian Government, which will be providing substantial support, has expressed no concern with the fact that the majority of the materials to be processed following successful demonstration are produced in the United States.

To continue the two programs which I have described and which we have classified as our "Foundation Projects", the funding requirements for FY 1996 are estimated to be:

For the Advanced Process Control Program with 70% DOE cost share: $4.369 million.

For the Waste Recycling Demonstration Program with 50% DOE cost share: $16.5 million.

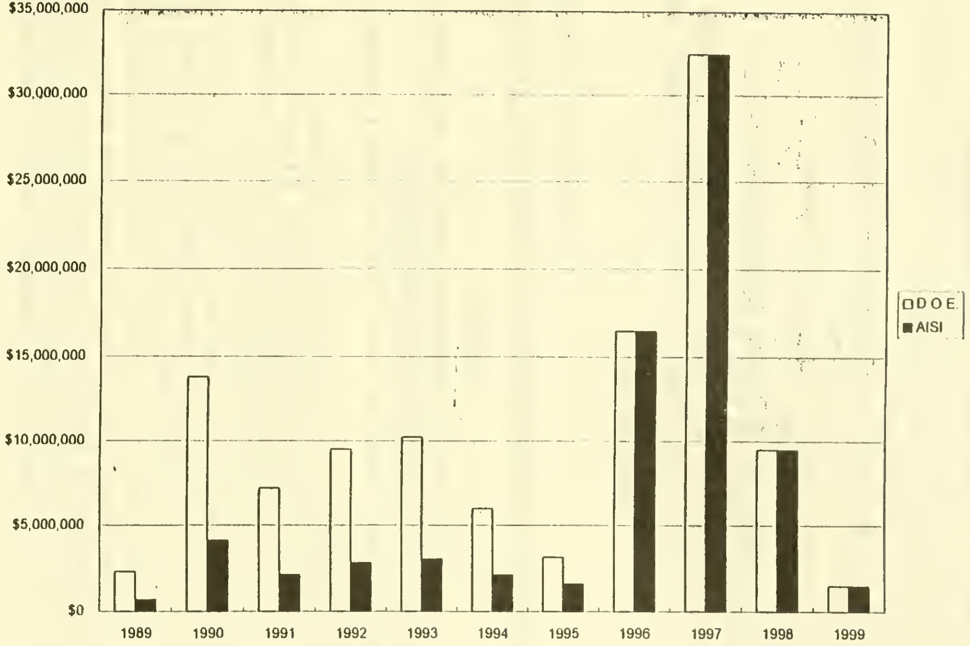
Again, thank you for providing me the opportunity to testify on this most important matter, and I would be pleased to entertain any question you might have at this time.

TABLE 1: AISI/DOE Advanced Process Control Program

Project Title	Project Description	Researchers
A. Optical Sensors and Controls for Improved BOF Operation	Develop sensors to characterize BOF off-gases and to measure the temperature of the molten bath. Develop new control techniques.	• Sandia National Laboratory • Insitec Measurement Systems • Bethlehem Steel
B. Improved Liquid Steel Feeding for Slab Casters	Eliminate casting problems that result from the clogging of liquid steel feeding systems. The system will be based on an electromagnetic approach.	• Westinghouse Science and Technology Center • North American Refractories Company • IPSCO
C. Microstructure Engineering in Hot Strip Mills	Develop a system to compute the microstructural evolution of steel that takes place during hot rolling of columbium and vanadium bearing grades. The system will be able to predict the final properties of the hot band before it is rolled	• National Institute of Standards and Technology • University of British Columbia • US Steel
D. On-line Mechanical Properties Measurements	Develop sensors which will measure properties on-line that are important to sheetmetal forming customers.	• Industrial Materials Institute • National Institute of Standards and Technology • LTV Steel • Weirton Steel
E. Phase Measurement of Galvanneal	Develop an instrument which will measure on-line the distribution of iron and zinc in the galvanneal coating, which determines the final product properties.	• Data Measurement Corporation • Jet Propulsion Laboratory • Inland Steel
F. Temperature Measurement of Galvanneal	Develop an instrument to provide continuous temperature measurement of the product while it is being made. Temperature is the controlling factor regarding distribution of iron and zinc which determines properties.	• Oak Ridge National Laboratory • University of Tennessee • National Steel

Funding Chart

Funding Levels for the Direct Steelmaking Program, Waste Oxide Recycling Program and Demonstration Plant



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Mr. REGULA. Is it possible for DOE to do this out of some of their existing funds or do they have to have an earmark?

Mr. MARSDEN. I am afraid I can't answer that, Mr. Chairman.

Mr. REGULA. But they are supportive?

Mr. MARSDEN. Very supportive.

Mr. REGULA. And there is a possibility of a pay back on it?

Mr. MARSDEN. Oh, indeed. Indeed.

Mr. REGULA. And that is all in your statement?

Mr. MARSDEN. Yes, indeed.

Mr. REGULA. Okay. We will take a look at it.

Mr. MARSDEN. Thank you very much.

Mr. REGULA. We need to re-read that story in the Bible where they fed 5,000 with five fishes and five loaves. Thank you very much.

Mr. MARSDEN. Thank you.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE HUMANITIES

WITNESS

WERNER GUNDERSHEIMER, DIRECTOR, FOLGER SHAKESPEARE LIBRARY, THE NATIONAL HUMANITIES ALLIANCE

Mr. REGULA. Okay, next we have The National Humanities Alliance. Good morning.

Mr. GUNDERSHEIMER. Good morning, Mr. Chairman.

I am Werner Gundersheimer. For the last 11 years, I have been Director of the Folger Shakespeare Library and I now serve as Vice Chairman of the National Humanities Alliance.

We are here to support the testimony that Mr. Hackney gave on Wednesday, and to endorse his pleas that funding for this vital institution be continued. The National Humanities Alliance believes that one one-hundredth of 1 percent of the Federal Government's budget in a great democracy is not an excessive amount to invest in the infrastructure of museums, historical societies, and institutions of learning, libraries and so forth, for the United States and that it is, in fact, a vital and irreplaceable part of that infrastructure.

I would be glad to respond to questions.

[The statement of Mr. Gundersheimer follows:]

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TESTIMONY

TO THE INTERIOR AND RELATED AGENCIES SUBCOMMITTEE COMMITTEE ON APPROPRIATIONS OF THE HOUSE OF REPRESENTATIVES ON THE FISCAL YEAR 1996 APPROPRIATION FOR THE NATIONAL ENDOWMENT FOR THE HUMANITIES

PRESENTED ON BEHALF OF

THE NATIONAL HUMANITIES ALLIANCE

WERNER GUNDERSHEIMER
DIRECTOR, FOLGER SHAKESPEARE LIBRARY

24 MARCH 1995

Mr. Chairman and Members of the Subcommittee,

I am Werner Gundersheimer, an historian specializing in the European Renaissance and serving as director of the Folger Shakespeare Library. I am also a director of the National Humanities Alliance (NHA) and currently serve as vice president of NHA's board.

It is a pleasure to testify before you today and to represent the National Humanities Alliance and its membership of more than eighty scholarly and professional associations, organizations of museums, libraries, historical societies, higher education, and state humanities councils, university-based and independent humanities research centers and others concerned with national humanities policies. A list of NHA members organizations is attached.

I am pleased to have this opportunity to express support for the National Endowment for the Humanities and the President's request for $182 million in Fiscal Year 1996. My colleagues in the National Humanities Alliance and I are aware of the very difficult funding decisions the committee must make and recognize that the NEH is unlikely to escape a reduction -- We ask that the agency not be singled out for cuts more than other parts of the Interior budget.

These are extraordinary times in Washington. We have followed the various initiatives in Congress with considerable interest, and with dismay and consternation the statements of some legislators that the endowments should be done away with or "privatized". We think that the case for federal support for a national program to foster scholarship, education, public programs, and the preservation of the nation's cultural heritage, in other words the National Endowment for the Humanities, is a strong one. A generation ago, when Congress established the endowments, the purposes of creating the new agencies were strong and clear. Those purposes first formulated in 1965 are, if anything, more relevant today as the Congress seeks to delineate the most appropriate activities for federal support. I wish to comment briefly on three of these findings (from Section 2 of the legislation):

> "that a high civilization must not limit its efforts to science and technology alone but must give full value and support to the other great branches of scholarly and cultural activity in order to achieve a better understanding of the past, a better analysis of the present, and a better view of the future"

Although there may be quibbles about size and scope, there has been no one in Congress questioning federal support for the natural sciences -- and rightly so. Over a thirty year period and with very broad bipartisan support, the Federal Government recognized its own responsibilities for the humanities and social sciences as well as the natural sciences. As Congress recognized the contributions of the NEH, appropriations for the agency expanded. And the federal support has paid off handsomely. Therefore, should NEH cease to exist or should it be significantly weakened through deep budget cuts, it would be a major loss in many areas. The question of support for NEH is not one of ideology but rather one of critical support for important national needs such as the preservation of our cultural heritage. The NEH has done much to strengthen the humanities in America and by that I mean much more than the dollars that the agency provides through its several programs. For example, NEH has provided a kind of non-intrusive coordination that has helped scholars take advantage of technology; linked together various interested groups to make the emerging National Information Infrastructure more accessible and responsive to the needs of scholars and others working in the humanities; and provided a crucial imprimatur for large-scale projects such as presidential papers (i.e., NEH is actually providing between 30% to 40% of the support for such current projects but is also actively assisting the scholars in raising the other funds.)

> "that democracy demands wisdom and vision in its citizens and that it must therefore foster and support a form of education, and access to the arts and humanities, designed to make people of all backgrounds and wherever located masters of their technology and not its unthinking servants"

Democracy, the humanities, and citizenship are intimately intertwined. The NEH is the single federal entity that helps to make Americans more thoughtfully aware of the responsibilities as well as the pleasures of citizenship -- from curriculum improvement projects for elementary students through public humanities projects of state councils to outstanding television programs such as "The Great Depression" -- from greatly broadened access to the papers of our leaders through The Library of America to the brittle books filming initiative.

> "that the world leadership which has come to the United States cannot rest solely upon superior power, wealth, and technology, but must be solidly founded upon worldwide respect and admiration for the Nation's high qualities as a leader in the realm of ideas and of the spirit"

NEH, by far the largest single funder of humanities activities in the country, has played a useful role in the development of the U.S. as the preeminent nation in terms of the breadth and vigor of its scholarship in a wide range of fields. The committee has heard testimony suggesting that the quality of U.S. scholarship and, in fact, all higher education, has been going downhill. As far as I can tell -- and the breadth and variety of American scholarship is so extensive that broad descriptions (or judgements) of it are extraordinarily difficult to make -- the reverse is actually more likely the case. The hundreds of thousands of students from all over the world who flock to American institutions of higher education would certainly seem to suggest that our scholars and their institutions are widely admired.

We do not claim that all activities supported by the NEH are of equal value -- As I expect one would find that all grants of the National Science Foundation are not of equal value. For much of the work of all fields of endeavor is to investigate the unknown; the discovery of new models of explanation -- trial and error. It is not possible to predict in the short term the value over time of work in the humanities.

We do claim that the NEH has over the past 30 years established an extraordinary record of success, from NEH's preservation and access activities that are seen as a model around the world, to its challenge grants with their three-to-one and four-to-one matching requirements that have helped cultural institutions across the country raise hundreds of millions of private dollars and move toward financial stability, to research grants and individual fellowships that have made possible thousands of important studies. NEH's network of state humanities councils have developed over the last twenty years into the premier providers of public humanities in rural and urban areas across the land. In short, the NEH is important, in fact essential, to Americans and the promise of thoughtful, reflective lives. (I should add that although they have not been addressed in my testimony today, NEH's sister agencies, the National Endowment for the Arts and the Institute of Museum Services are of parallel and equal import to life in America.)

In closing, Mr. Chairman, my colleagues and I are appreciative that you have sought to make the consideration of the endowments' budget request for FY-1996 as close to the traditional process as possible, in light of the authorization problem. We see the NEH as a vital element in the humanities enterprise and will do all that we can to assure the continuation of this federal agency as a lively national program.

The NHA National Humanities Alliance

ACTIVE MEMBERS OF THE NATIONAL HUMANITIES ALLIANCE

American Academy of Religion
American Anthropological Association
American Association of Museums
American Association for State and Local History
American Council of Learned Societies
American Folklore Society
American Historical Association
American Musicological Society
American Philological Association
American Philosophical Association
American Political Science Association
American Society for Aesthetics
American Society for Eighteenth-Century Studies
American Society for Legal History
American Sociological Association
American Studies Association
Association for Asian Studies
Association for Documentary Editing
Association for Jewish Studies
Association of American Colleges
Association of American Geographers
Assocation of American Law Schools
Association of Research Libraries
Coalition for Networked Information
College Art Association
Commission on Preservation and Access
Shelby Cullom Davis Center for Historical Studies,
Princeton University
Federation of State Humanities Councils
The George Washington University
History of Science Society
Independent Research Libraries Association
Linguistic Society of America
Medieval Academy of America
Middle East Studies Association
Modern Language Association
National Association of Scholars
National Council of Teachers of English
National Humanities Center
Organization of American Historians
Phi Beta Kappa Society
Renaissance Society of America
Research Libraries Group
Sixteenth Century Studies Conference
Social Science Research Council
Society for Historical Archaeology
Society for the History of Technology
Society of Biblical Literature
Special Libraries Association
Speech Communication Association
Teachers for a Democratic Culture
Virginia Center for the Humanities

ASSOCIATE MEMBERS OF THE NATIONAL HUMANITIES ALLIANCE

African Studies Association
American Dialect Society
American Library Association
American Numismatic Society
American Society for Theatre Research
Association of American University Presses
Association of Art Museum Directors
Center for the Humanities, Wesleyan
University, Connecticut
Chicago Historical Association
College English Association
Commonwealth Center for Literary and Cultural
Change, University of Virginia
Community College Humanities Association
The Council of the Humanities, Princeton University
The Hastings Center
Institute for Advanced Study
Institute for the Humanities, University of
Michigan
Institute for the Medical Humanities, University
of Texas Medical Branch, Galveston
Institute of Early American History and Culture,
College of William and Mary
International Research and Exchanges Board
Midwest Modern Language Association
Northeast Document Conservation Center
Philological Association of the Pacific Coast
Popular Culture Association
Shakespeare Association of America
Society for Ethnomusicology
Society of Architectural Historians
Society of Christian Ethics
South Atlantic Modern Language Association
South Central Modern Language Association
Doreen B. Townsend Center for the Humanities
University of California, Berkeley
University of California Humanities Research
Institute, University of California, Irvine

February 1995

[illegible]
Washington DC [illegible]

TEL 202/296-[illegible] FAX [illegible]

Mr. REGULA. Well, we of course heard from Chairman Hackney and I guess you endorse everything he has said on behalf of the humanities?

Mr. GUNDERSHEIMER. I do.

Mr. REGULA. They have accomplished a lot of good things. It is going to be a challenge and of course I think it is very important that you testify in the authorizing committee, because at this moment NEH is not authorized for fiscal year 1996.

Mr. GUNDERSHEIMER. We hope we will have that opportunity.

Mr. REGULA. I understand from Mr. Goodling that he anticipates a hearing on the matter and I hope it will be soon.

Do you have any questions, Mr. Nethercutt?

Mr. NETHERCUTT. Just very quickly. I think it is universally probably accepted that NEH does some good things and has done good things over the years. I notice that you support the President's request for full funding.

Are you willing at all to concede that there should be—or there can be some cuts in NEH and that there should be some cuts in NEH given the pressure financially that this country is now experiencing?

Mr. GUNDERSHEIMER. Of course we recognize the pressures that exist in funding of a great many worthy entities that are part of the Federal Government. We would plead that any cuts that took place in NEH would be proportionate to those that affected other agencies and not disproportionate.

Mr. NETHERCUTT. We have increased funding over the years for NEH. Is there an appropriate level that, in your judgment, that the Congress should provide for it in terms of humanities in this country? I mean, just because it is more this year than it was last year doesn't mean that that is the proper level. It could be $50 million instead of $82 million or whatever it is.

Mr. GUNDERSHEIMER. Theoretically, in a perfect world I would want to advocate a very substantial increase. I think that the increase in funding over the years has been impressive, but if you look at the character of the funding over the last 10 years, the decline in purchasing power has been about 40 percent. And I don't think that in any of the other agencies outside of the humanities and the arts, which support infrastructural research and major institutions contributing to the advancement of knowledge, that is the case.

And I would argue that in many ways, the NEH functions analogously to the science infrastructure where we have made a much more substantial investment.

So I would not want to identify a figure significantly below what is now being spent and tell you that our country could continue to support a cultural initiative such as we do across the 50 States that would be at all comparable.

Mr. NETHERCUTT. Thank you.

Mr. REGULA. Thank you very much.

FRIDAY, MARCH 24, 1995.

U.S. GEOLOGICAL SURVEY; MAPPING PROGRAMS

WITNESS

ROBERT W. FOSTER, PAST PRESIDENT FOR ACSM, THE AMERICAN CONGRESS ON SURVEYING AND MAPPING

Mr. REGULA. Next is the American Congress on Surveying and Mapping, Mr. Foster.

Mr. FOSTER. Good morning, Mr. Chairman. Thank you very much for allowing us the opportunity to testify.

I am a professional engineer and a professional surveyor and I am a Past President of the American Congress on Surveying and Mapping, and I would like to speak to the need for stable funding for the important mapping functions of the national mapping program of the U.S. Geological Survey.

There are a number of what we consider to be very important mapping functions. There is coordination and management of the Nation's spatial data. There is development of the national—what we call the national spatial data infrastructure, NSDI. It is one of those terms that is becoming more in use daily. There is research, development, and technology transfer functions.

And availability and public use of map data, we feel that the availability of map information is like national defense and it is a public good and it is a function of democratic governments throughout the world.

The groups on whose behalf I am testifying today strongly support adequate funding for mapping functions performed by the USGS. I have a list of 11 additional national natural resource-related organizations who support USGS and the need for adequate funding for its important functions, and if you are in agreement, Mr. Chairman, I would like to submit this.

Mr. REGULA. That will be part of the record with your statement.

Mr. FOSTER. Yes, thank you.

We understand that all Federal programs are under review this year in an attempt to reduce the Nation's budget deficit and we support this necessary exercise. At the same time, we express our hope that the subcommittee not arbitrarily cut funding for important mapping services in USGS without first considering alternatives to assist in offsetting costs.

We believe our alternatives that we have suggested provide a better way for the subcommittee to incur cost savings. In recent testimony before the authorizing subcommittee for USGS, we recommended a couple of options for Congress to explore as alternative methods to achieve cost savings and efficiencies.

Our first suggestion, which has been endorsed by the House Resources Committee, is to review the possibility of creating a single civilian mapping agency by consolidating our country's fundamental services, like mapping, surveying, charting, geodesy that are currently spread throughout the Federal Government.

Mr. REGULA. I assume defense has some?

Mr. FOSTER. Well, we are addressing primarily the civilian mapping. The defense mapping agency is——

Mr. REGULA. In addition to USGS, what other agencies would have mapping functions?

Mr. FOSTER. There are a number of agencies. BLM and the NGS. Agriculture of course. All of these different have functions.

Mr. REGULA. What you would like to see is to have this all consolidated in one mapping agency?

Mr. FOSTER. Yes. There is a 1981 report whereby the National Research Council identified 39 agencies of the Federal Government that are doing mapping and geodesy and surveying and that sort of thing, and we feel that—and we understand that as a combination something like $500 million worth of these functions are being done by these three dozen or so agencies. And we believe that through consolidation and the efficiencies and just the reduction of redundancies and overlapping, that you could save 10 percent, 10 to 20 percent of this depending on how many of these agencies' mapping functions were brought together. And we are suggesting a blue ribbon panel to look at this. There have been a number of technological changes since 1981, but we would like to see this explored.

The other suggestion that we made is perhaps more immediately practical, and we are suggesting that some of the services provided by USGS could bring more revenue. The OMB Circular A–130 would allow the USGS national mapping program to price its paper topographic maps within the circular's limits. They presently sell these maps for $1.25.

Mr. REGULA. That issue came up when they testified.

Mr. FOSTER. The commercial market is selling those for five or six bucks in sporting goods stores. We feel that you could double that. We feel you could double that and pick up another $8 to $10 million just on that alone.

Mr. REGULA. That is a subject that the authorizing committee needs to deal with.

Mr. FOSTER. Well, in closing, and I thank you again, I would just like to point out that the Nation needs mapping and spatially or referenced digital data, and the need is growing exponentially as resources become more important, protection of resources, and use of land and all of these things, and the growth demands continued Federal involvement. We feel that the Federal Government should be involved.

[The statement of Mr. Foster follows:]

ACSM
American Congress on Surveying and Mapping
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Phone: (301) 493-0200; Fax: (301) 493-8245
March 24, 1995

STATEMENT OF ROBERT W. FOSTER

Past President, the American Congress on Surveying and Mapping

on Behalf of

The American Congress on Surveying and Mapping
The American Society for Photogrammetry and Remote Sensing
Global Positioning Systems International Association

Before the House Interior Appropriations Subcommittee

I appreciate the opportunity to appear before this panel today to discuss the need for stable funding ($127.39 million) for important mapping functions embodied in the National Mapping Program of the U.S. Geological Survey (USGS).

My comments today reflect the views of the American Congress on Surveying and Mapping (ACSM), the American Society of Photogrammetry and Remote Sensing (ASPRS), and Global Positioning Systems International Association (GIA). These groups represent a broad spectrum of related professional disciplines that work closely with mapping information and data provided through the USGS National Mapping Program.

As this subcommittee deliberates upon how to allocate its limited discretionary funding, I wish to focus your attention on the inherent value of USGS mapping functions to the public and mapping professionals.

Federal Participation Essential for Mapping Functions

Presently the Federal government supports mapping functions that are inherently in the public interest and can best be performed by the public-sector. In addition, the Federal government has responsibility to protect the health and welfare of its citizens. Both these goals are met through Federal involvement in critically important mapping functions. Federal participation in mapping and charting functions throughout the Federal government have provided accurate, reliable map products that benefit the public and protect the safety and welfare of the public. Federal mapping activities have resulted in quick response for disaster relief, protection of the nation's natural resources, safe navigation of our coastal waters and national airspace.

Mapping Functions Provided by USGS

With the technological change in mapping to computer-based information from graphic map presentations, the mapping functions at the USGS have changed and will continue the evolutionary process. The USGS has completed its 1:24,000 series of graphic topographic maps of the country. USGS maintains, updates and is currently transforming these maps into computer-based format. This describes the overall mapping function of the USGS but is not nearly descriptive enough to convey the importance of the components of those functions to the user public. To that end, I will briefly describe some of the most important facets of those functions that can best be achieved by Federal participation.

- **Coordination and Management of the Nation's Spatial Data**--this important function actually saves the taxpayer money. Federal participation in coordinating federal and state mapping efforts, including standards, requirements, research, development and technology transfer reduces duplication of effort and fosters transfer of innovative techniques to the private-sector.

- **Development of the "National Spatial Data Infrastructure"**--this is the terminology used to describe the concept of uniform digital cartographic databases consisting of a minimal set of map data that is significant to a broad variety of users within any geographic area. This national resource would provide standardized, accurate, mapping data including features such as roads, railroads, streams, and elevation. These databases are crucial for efficient and effective use of geographic information systems (GIS) technology at all levels of government and the private sector. GIS is increasingly used by government and the private-sector for decisionmaking purposes, and quality control is a vital element. If the GIS base reference framework, i.e. GIS base mapping, is inaccurate or unreliable, so are the decisions made based upon that data. As our country's cities and counties place their land records, utility locations, zoning requirements, and infrastructure data into a GIS, greater reliance upon base mapping data is essential. The NSDI will address this concern. Another key element of the NSDI is to alleviate redundancy of map data collection and ensure the best value and use of taxpayers dollars at all levels of government.

- **Research, Development, and Technology Transfer Functions**--these functions are vitally important in advancing improved mapping technologies. Federal investments in research, development, and technology transfer through USGS mapping has aided private-sector investments in commercial mapping activities. USGS in-house research in digital cartography, GIS, and remote sensing and imaging has fostered the emergence and growth of world-class GIS companies, and strong commercial mapping, remote sensing and value-added firms in the U.S. through technology transfer of research to the private-sector. The public investment in these functions strengthens our technology base, fosters cooperative efforts, advances new technology and innovative mapping techniques, and maintains U.S. leadership in GIS technology.

- **Availability and Public Use of Map Data**--the availability of map information, like national defense, is a public good and is a function of democratic governments throughout the world. The general public uses USGS quad maps for numerous outdoor activities. Surveying, mapping, and civil engineering professionals utilize USGS maps on a daily basis because of their accuracy, comparability and integrity of the data. For these professionals, the standard USGS topographic maps and data inventories are invaluable tools. USGS maps and services, such as standards, updating of spatial data and coordination of research and development of rapidly changing computer and satellite-based mapping technologies, provides the user with a consistent national-level mapping system. Surveying and mapping professionals use this network to assist their tasks in reconstructing our nation's deteriorating infrastructure; designing transportation, energy and communications systems; and in defining natural resource areas.

Mapping Functions Performed by USGS Should be Adequately Funded

There is strong support by the public and user community for the mapping functions provided by the USGS National Mapping Program. In addition to the groups on whose behalf I am testifying today, ACSM has received notice of continued support for stable funding of USGS functions from eleven national natural resource-related organizations, representing over 300,000 professionals.

We understand that all Federal programs are under review this year in an attempt to reduce our nation's budget deficit. We support this necessary exercise but in the same vein express our hope that the subcommittee not arbitrarily cut funding for important mapping services within USGS without first considering viable alternatives to assist offsetting costs. Later in our testimony, we will discuss alternatives that would achieve efficiencies, reduce costs and not endanger important mapping functions. Draconian cuts in the USGS National Mapping Program would only serve to dismantle functions that are serving the public well. We believe our alternative strategy provides a better way for the subcommittee to incur cost savings.

Without adequate resources to address current and future needs, the utility of government mapping services and products would be severely reduced.

We are aware that the USGS National Mapping Program is committed to revisiting its evolving mission with the goal of streamlining its activities and downsizing its personnel. It appears to us that the USGS National Mapping Program and this subcommittee share a common goal--increasing the effectiveness of government operations without increasing appropriations. Since the goal is the same, we respectfully suggest that this subcommittee and the USGS develop a framework within which this process can move forward without harming important mapping functions that are in the public's best interest.

With the rising number of commercial mapping and GIS firms in the U.S. marketplace, the USGS National Mapping Program announced a policy in 1992 of increasing its level of contracting of mapping services to 50 percent by 1998.

Without adequate funding for USGS, the important mapping functions crucial to contracting could not be addressed such as setting standards, contract monitoring and control, research, development and technology transfer. These mapping functions associated with contracting greatly assist our economy by growing strong private-sector capabilities.

Recommendations For Costs Savings

In recent testimony before the authorizing subcommittee for the USGS, I recommended the following options for Congress to explore as alternative methods to achieve cost-savings and efficiencies.

The first option, which has been endorsed by the House Resources Committee, is to review the possibility of creating a single civilian mapping agency by consolidating our country's fundamental services such as mapping, surveying, charting and geodesy that are currently spread throughout the Federal government. Numerous studies, including an OMB Task Force in 1973 and the National Research Council review in 1981, support this concept. Since significant changes have occurred in these technologies since the time of the last studies, we recommend that a blue-ribbon panel be commissioned by Congress to determine the appropriate mapping, surveying, charting and geodesy functions, agencies, and agreements necessary to implement a civilian mapping agency.

We are pleased that the House Resources Committee supports consolidation and would like to work with Congress to move this initiative forward in a thoughtful manner. To this end, ACSM suggests that the question of where such an agency be housed be left to the discretion of a blue-ribbon panel that could best address this question. By avoiding duplication of effort in government mapping, we believe cost-savings could be incurred. It would be difficult to anticipate any precise dollar savings since that figure would depend upon how many government agency mapping, surveying, charting and geodesy functions are included within such a framework.

The second option is for Congress and the Administration to review OMB Circular A-130 to allow the USGS National Mapping Program to more fully price its paper topographic maps within the Circular's limits. This would add revenues that would revolve back to the National Mapping Program and thus assist in reducing its operating costs.

We would be interested and pleased to provide additional input on these options and work with the subcommittee with ideas on implementing these suggestions.

Summary

The Nation's appetite for and myriad uses of mapping or spatially referenced digital data is growing exponentially. This growth demands continued Federal involvement in coordinating, managing, cataloging, and disseminating accurate, consistent and reliable spatial data sets to the public. The USGS National Mapping Program admirably fulfills part of this important requirement.

For this reason and the examples provided earlier in our testimony, we strongly urge this subcommittee to protect stable programmatic levels for USGS mapping functions at the level of $127.39 million. Thank you for your consideration of our views.

ORGANIZATIONS SUPPORTING USGS PROGRAMS

The following organizations have contacted the American Congress on Surveying and Mapping to indicate their support for stable funding for the U.S. Geological Survey and continuation of the agency's valuable work in mapping, geology, water resources, and related natural resources:

- American Society of Horticultural Science--5,000 members
- American Water Resources Association--3,800 members
- Association of American Geographers--7,200 members
- American Society of Agronomy--12,500 members
- American Society of Civil Engineers--115,000 members
- American Society of Landscape Architects--10,000 members
- National Association of Conservation Districts--15,000 members
- Soil and Water Conservation Society--12,000 members
- Soil Science Society of America--12,000 members
- The Ecological Society of America--7,000 members
- The Wildlife Society--9,200 members

Mr. REGULA. Has the product of SLAR been useful?

Mr. FOSTER. SLAR, I am not familiar with.

Mr. REGULA. Side looking airborne radar. It is a mapping technology.

Mr. FOSTER. Most of the remote sensing is not yet adapting that type of—remote sensing technologies is mostly direct vertical remote sensing, but a great deal of that of course is both from aircraft and from satellites.

Mr. NETHERCUTT. No questions, thank you.

Mr. REGULA. Thank you.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: GAS INDUSTRY R&D INITIATIVE

WITNESS

MICHAEL EAVES, AMERICAN GAS ASSOCIATION

Mr. REGULA. American Gas Association, Mr. Eaves.

Mr. EAVES. Good morning, Mr. Chairman.

I am Mike Eaves. I am manager of Transportation Research for Southern California Gas Company. I also represent the Vice Chairmanship of the gas industry RD&D initiative, and I am here today representing the American Gas Association.

And what we would like to do on behalf of the natural gas industry and the American Gas Association is we are here to support the Department of Energy's natural gas program. That is currently a budget request of $268 million. We recognize that that is an increase over the last couple of years, but the fact is that it still represents 14 percent of the energy budget by the Department of Energy for an industry that supplies about 25 percent of the Nation's industry demands.

I think that the Department of Energy's program really complements what we in the gas industry are trying to do. We are trying to spend money for RD&D to accelerate the development of key natural gas technologies.

[The statement of Mr. Eaves follows:]

TESTIMONY OF
MICHAEL L. EAVES
TRANSPORTATION MANAGER, RESEARCH
SOUTHERN CALIFORNIA GAS COMPANY
ON BEHALF OF
THE AMERICAN GAS ASSOCIATION
AND THE
GAS INDUSTRY'S RD&D INITIATIVE
BEFORE THE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
APPROPRIATIONS COMMITTEE
U.S. HOUSE OF REPRESENTATIVES
ON THE FY 1996 DEPARTMENT OF ENERGY
RESEARCH AND DEVELOPMENT BUDGET
MARCH 24, 1995

Mr. Chairman and Members of the Subcommittee:

I am Mike Eaves, Manager of Transportation Research for Southern California Gas Company (SoCalGas) and Vice Chairman of the Natural Gas Industry Research, Development, and Demonstration Initiative Group. The Gas Industry RD&D Initiative is a group of 37 gas companies and 12 research and trade organizations formed in 1989 specifically to address issues affecting accelerated natural gas technology development. The Initiative works closely with the American Gas Association (A.G.A.), a national trade association composed of more than 275 natural gas utilities, pipelines and marketing and gathering companies in North America, which together account for more than 90 percent of the natural gas delivered in the United States. We appreciate this opportunity to present our views on natural gas-related research, development and demonstration (RD&D) sponsored by the Department of Energy.

The gas industry supports the objective of balancing the budget by 2002 and we recognize the need to eliminate or reduce funding for lower priority federal programs to achieve this goal. We understand that Congress must scrutinize federal programs and ask whether a federal role is required. Given the tough choices which must be made, we recommend that Congress fund energy RD&D programs that will increase our nations's economic competitiveness, enhance our energy security, and improve energy efficiency. We further recommend that Congress support programs which include vigorous government/private sector partnerships. The Department of Energy's RD&D programs on natural gas utilization and supply meet these criteria.

The Initiative, created five years ago, proposed a 10 year $2.5 billion natural gas RD&D program to accelerate federal funding, augmented with private sector investment, to develop and commercialize natural gas technologies by the year 2000. These federal expenditures complement the Gas Research Institute and gas companies investment of $250 million annually. Additionally, manufacturers and producers account for an additional $400 million per year. Clearly, the gas industry seeks a continued partnership with the government to ensure natural gas technologies come to fruition by entering the marketplace.

We hope Congress will support the Administration's FY 1996 Budget Request of $268 million for natural gas programs, of which $253 million falls under this Subcommittee's jurisdiction. If budget constraints prevent full funding of the Administration's budget request, we want to work closely with this subcommittee to identify our priorities for FY96 funding.

As this subcommittee develops the FY96 appropriation for DOE's energy RD&D programs we urge the members to recognize that the DOE budget historically has been weighted towards energy sources other than natural gas. Despite increased funding over the last two years the federal government currently spends less than fourteen percent of its energy RD&D dollars on natural gas programs. Yet, natural gas supplies about one quarter of America's energy needs and is projected to be over 25% by the year 2010. For example, we anticipate a potential increase of gas use in the commercial market by as much as 800Bcf a year due to increased gas cooling in this sector. Over two-thirds of the additions to U.S. electric capacity in the next decade are projected to be natural gas-based. If Congress chooses to scale back the overall energy RD&D program we ask that you consider the appropriate balance among fuels and the important role natural gas can play in our nation's energy future.

The following are specific program areas where federal funding will provide benefits to the national economy, energy supply and environmental quality.

I. NATURAL GAS VEHICLE PROGRAMS

Natural gas vehicles (NGVs) can help meet our nation's objective to reduce oil consumption and displaced imported oil. Over 50% of the petroleum we use is imported. The transportation sector is over 97 percent dependent on petroleum. More than two-thirds of U.S. petroleum consumption occurs in the transportation sector. By DOE estimates, alternative fuel vehicles will offset nearly one-half million barrels of oil per day by the year 2010. These petroleum savings, equivalent to some $3.3 billion in annual oil imports, are projected to be instigated by, and are dependent upon DOE's incremental funding for federal fleet purchases of AFVs - the government's investment represents an extremely favorable cost/benefit ratio.

The House of Representatives has rescinded $20 million from FY95 Appropriations for the incremental cost of purchasing alternative fuel vehicles for federal fleets. We believe federal fleet purchasing must continue and a policy that inhibits greater use of NGVs is contrary to national environmental and energy security policy.

For FY96, DOE has proposed $20 million for the purchase of federal fleet alternative fuel vehicles as required by the Energy Policy Act of 1992. The primary obstacle in moving more vehicles to the market is the differential in incremental costs for an NGV. We believe this can be solved by increasing the volume of NGVs; thus, lowering the production costs. The federal government, as one of the largest purchasers in the world, must lead the way in providing the opportunity for NGVs to become economically viable and sustainable such that assistance to cover the differential will not be needed. DOE is working with the various agencies interested in providing vehicles to phase out DOE's responsibility to fund the entire incremental cost. We support the eventual transition to individual agencies.

Additionally, the DOE and the industry are working together on necessary research and development to improve on-board storage for NGVs. This research will help lower the cost of the natural gas storage cylinders which comprise over half of the incremental cost. Another priority, as identified by the natural gas vehicle industry strategy is to focus on heavy fuel use in vehicles. DOE is a partner in funding several emissions programs to certify medium and heavy duty engines, including those used in locomotives. The oil displacement and emissions reduction in these successful applications would improve both our energy security and our air quality. The total gas related funding request within the engine optimization category is $5 million of the $7.34 million request.

II. NATURAL GAS COOLING

For FY96, DOE has requested $6.75 million, down from FY95 appropriations of $8.8 million. In FY95, Congress initiated a $2 million DOE program on desiccant dehumidification-based systems for heating and cooling. This private sector/DOE cost-shared program evaluates and characterizes desiccant materials and systems is designed to be a two year program and should be continued in FY96.

Since concerted efforts are being made to increase the economy's energy efficiency, advanced natural gas cooling equipment makes an excellent prospect to the more effective utilization of this country's multibillion dollar electric and natural gas infrastructure capacity. Gas cooling accomplishes this through peak-shaving and valley-filling of the customers' energy demand curve.

Natural gas is and will continue to be the leading source of end-use energy for space heating. Natural gas cooling technologies today are beginning to enjoy unprecedented success in the global marketplace. A May 1994 study by Oak Ridge National Laboratories estimates that domestic and international use of natural gas cooling equipment would create a net 270,000 jobs per year in the period 1996-2010. This will create an additional $8.3 billion in new wages and salary income through 2010.

III. TURBINES/HEAT ENGINES

DOE has requested $67 million for the Advanced Turbine Systems program. This program is a model industry/federal government partnership to develop more efficient turbines for power generation in utility and industrial applications. DOE program objectives of increasing efficiency over 60% will provide major reductions in fuel consumption and lower electricity rates.

Over the next decade, the demand for new power generation is expected to create a global market worth $1 trillion. Most estimates predict gas-fired combined-cycle and combustion turbine technologies will provide a significant share of the expected new capacity.

Over seven gigawatts per year of gas turbine capacity is today manufactured in the U.S. Keeping U.S. turbine manufacturers on the forefront of turbine system technology will preserve and expand U.S. jobs, by enabling U.S. companies to increase exports to a rapidly growing world market, in addition to supplying the domestic market.

IV. NATURAL GAS FUEL CELL PROGRAMS

For FY96, DOE requested $56 million for fuel cells technologies for power generation and also $23 million for research on fuel cells for buildings and NGVs. DOE and the gas industry have a long history of federal/private sector partnerships for the development of fuel cell technologies. Fuel cell technologies will result in higher energy efficiancy than existing combustion-based generating systems; negligible emissions of smog and acid rain precursors; lower greenhouse gas emissions than other fossil fuel based generating systems; a modular nature that facilitates progressive, cost effective, scale-up to keep pace with future growth; local sitting close to the demand; and, the ability to provide heat for cogeneration (combined heat and power) in a wide range of applications.

A recent study by the A.D. Little Company projects the worldwide market for fuel cells at about $3 billion annually by the year 2000 with significant growth thereafter. A substantial part of this market is international where countries have ample natural gas but lack the electric power infrastructure. Development of the international market could mean $1 - $2 billion annually in exports for the U.S. and the creation of thousands of high-technology jobs domestically.

Our industry believes government procurement of fuel cells will provide them the necessary assistance for this technology to enter the commercial market. Also, as a clear sign of its commitment, the gas industry has provided nearly $20 million for the direct procurement of phosphoric acid units.

V. INDUSTRIAL SYSTEMS PROGRAMS

Industrial energy consumption is expected to increase a total of 9% between 1994 and 2010. Overall natural gas use by industrial enterprises (including cogenerators) is projected to increase a total of 12% by 2010. To meet the energy consumption increase, DOE must focus on R&D programs that can meet this demand in a cost-effective way.

DOE's Industries of the Future Program will work with seven energy intensive industries to identify research and development needs to improve industrial productivity and lower energy use. Our industry believes that increased development of natural gas technologies will allow DOE to meet its national environmental and economic goals.

VI. COMMERCIAL/RESIDENTIAL APPLIANCE PROGRAMS

The gas industry encourages federal support for advances in gas-fueled residential and commercial equipment. Natural gas appliances have strong customer acceptance. Currently 46 percent of the residential and 80 percent of the commercial appliance market is being served by gas appliances. If the U.S. develops and maintains a clear technological edge over foreign competitors, a significant opportunity to export natural gas technologies and equipment should develop. Enhancement of our nation's competitive position in these existing markets will expand by more rapid technology development and aggressive deployment.

VII. NATURAL GAS SUPPLY

DOE has requested $46.4 million for natural gas supply programs. All estimates predict gas consumption will increase significantly over the next fifteen years. To meet this growing demand, clearly, there must be ample supplies of natural gas. Historically, technological progress has expanded the economically recoverable gas resource base and reduced effective exploration and development costs. The National Petroleum Council estimates that technology advances will add more than 230 TcF to the resource base by 2010.

Natural gas supply program initiatives should focus on developing technologies for enhanced production from existing wells as well as exploration and production technologies for developing new sources of natural gas. DOE also has conducted important research to provide more effective ways of disposing of wastes produced during natural gas drilling and processing operations.

CONCLUSION

The gas industry is fully committed to the development of our technologies. We have been and will continue to take full responsibility for our role in the government/private sector partnership.

Although industry funding is significant, the gas industry and its regulated transmission and distribution companies cannot support major R&D efforts alone. A federal government role is appropriate where the RD&D provides "net benefits" to the United States. Private sector cost share increases steadily through the continuum of basic research through development, demonstration and commercialization. The federal government must step in to help spread the initial risks -in terms of both research and development costs and product-deployment costs-until consumer demand makes a new product commercially self-sustaining.

Our industries compete in a global economy where our major competitors such as Japan and Germany provide substantial assistance to industry in R D & D and commercialization. The federal investment would be wasted if the federal government performed basic research for natural gas technologies but did not follow through on applied research; allowing foreign governments to step in and make billions of dollars off U.S. developed technologies.

New natural gas technologies can provide substantial benefits to the Nation. Cleaner air, enhanced energy security, energy efficiency, job creation, and improvements in U.S. international competitiveness all are byproducts of prudent spending of federal research dollars.

Thank you for the opportunity to testify today.

Mr. REGULA. Are you having any success with infrastructure for natural gas engines in the California area?

Mr. EAVES. In the California area, we have gotten our own system. We have got about 60 natural gas refueling stations that have been installed within the last two years. We have plans in the budget for another 100 systems in just Southern California and hopefully another 450 with private industry support.

Mr. REGULA. So there will be availability.

Are your cities pushing their commercial users to use natural gas?

Mr. EAVES. We are both promoting on the marketing side and promoting the business of retail refueling for fleets and high fuel use vehicles.

Mr. REGULA. Sounds like you are really progressing very well out there.

Mr. EAVES. Well, we are. And we see that the Department of Energy's efforts really complement what we are trying to do. We have got the industry investing $250 million a year in gas research and another $400 million with producers and manufacturers and this complements the DOE's request for natural gas.

Mr. REGULA. Do you favor matching—at least a 50/50 match from the private sector on these various programs to develop technology?

Mr. EAVES. The 50/50 matching is I think an appropriate place to start negotiations on earlier higher risk basic research. The gas industry's funds don't normally go to that and that is appropriate maybe for a Department of Energy, but as we proceed through the development and actually get into demonstration and commercialization, our matching funds by the gas industry are actually much higher than the 50/50.

Mr. REGULA. Very well.

Any questions?

Mr. NETHERCUTT. Do you see any opportunities for a reduction in cost in the $268 million or reduction in the expenditures of the $268 million where you recommended that DOE might reduce its expenditures or budget?

Mr. EAVES. Right now we are supporting the $268 million, but we recognize the realities of the budget cuts that are going forward and we are prepared as an industry to work with this committee and others to redefine the priorities.

The natural gas RD&D initiative, the goal was not to just develop monies to spend for research, but actually to commercialize these products by the end of the decade. So we have to look at what things that we would maybe sacrifice in and which things we would like to accelerate, but we are willing to make those compromises.

Mr. NETHERCUTT. Are you prepared to do that at all for the record today or would you prefer to wait?

Mr. EAVES. We actually have many people in the industry right now that are working on this issue and submitting their recommendations by the middle of April, so it would be premature to say that right now.

Mr. REGULA. Thank you very much. We appreciate your testimony.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: ADVANCED TURBINE SYSTEMS PROGRAM

WITNESS

PETER A. CARROLL, VICE PRESIDENT, GOVERNMENT AFFAIRS, SOLAR TURBINES

Mr. REGULA. Next we have Solar Turbines, Mr. Carroll, Vice President of Government Affairs. Mr. Carroll, welcome.

Mr. CARROLL. Mr. Chairman and Mr. Nethercutt, as a present member of this committee, thank you very much for the opportunity to appear before you today to speak about programs that are most important to our industry, its thousands of employees, and I believe the Nation as a whole.

My name is Peter Carroll, and I am a representative of the industrial gas turbine manufacturing and packaging company, Solar Turbines Incorporated. We are a U.S.-owned and U.S.-operated company with more than 4,000 skilled manufacturing employees, all within the United States.

Our power generation gas compression and mechanical drive products are sold wherever gas and oil industry operates throughout the world. We export more than 50 percent of the products that we completely manufacture within the United States. Today we are in the most fortunate position to be the leader of our market in horsepower below 20,000 horsepower. The next three principal competitors that take these products to market are all foreign manufacturers.

We strongly support the initiatives of the 104th Congress to significantly reduce our national debt and relieve our individual and commercial tax burdens. We recognize that to accomplish these important goals, major reductions will need to be made in all of our government, including the Department of Energy. We, therefore, are most concerned about how these cost reductions will be accomplished. Our company will watch with great interest as you go through the 1995 budget rescission process and as you complete your deliberations on the 1996 budget.

The Department of Energy plays a most vital role for the country as the steward of our energy resources. Secretary O'Leary in her testimony before you on the fourteenth underscored that mission when she spoke to her Department's vital role in assuring sufficient available energy resources for a secure Nation, a strong economy, and a clean environment.

A key building block to her strategy is the Department's domestic natural gas and oil initiative, which she said would change the balance of trade by $1.9 billion a year and up to 10,000 jobs.

Those research and development programs conducted with significant cost sharing and in partnership with the industry that focuses on these critical issues are where the Department's priorities should lie and funding should be kept in place.

At the top of that list is the advanced turbine systems program. No single project outside the automobile conversion to natural gas provides a broader market use for this clean fuel than the application of power generation in the utility sized market and in the emerging distributed power application and in industrial cogeneration, the industrial sized market.

As we take advantage of natural gas, expanding distribution network will become essential and the gas turbine industry will see major growth from a variety of applications.

Today, there are over 15 million horsepower delivering natural gas to our homes and industry. The current level of 21 TCF is planned to grow to 25 TCF as the expanded use of gas takes hold. This will mean at least 3 million additional horsepower of gas compression equipment for transmission and storage. Much of the 15 million horsepower currently in service is more than 20 years old and will require replacement and retrofit.

Industries more and more see the value of self-generation where their manufacturing processes carry with them high heat requirements. The use of cogeneration creates the most significant energy conservation system we have available today for practical use. Levels above 50 percent efficiency are readily available.

Meeting these demands within the next two years with higher efficiency will significantly reduce our energy consumption and the cost of energy to our manufacturing enterprise, creating more competitive products for use at home and for export.

Secretary O'Leary responded to your questions concerning the availability of natural gas by stating she felt that there was a 30 to 60 year supply currently available. The gas industry's estimates may go higher. Completing the advanced turbine system program on time, and by that I mean funding it consistent with the program plan and seeing that you have at least one contractor in each phase to produce on time, will contribute to at least a 10 percent further savings of that resource.

[The statement of Mr. Carroll follows:]

Written Testimony of: Peter A. Carroll, Solar Turbines Incorporated
Before the: House Appropriations Subcommittee on Interior and Related Agencies
United States House of Representatives
Covering the: Department of Energy, Energy Efficiency and Renewables,
Office of Industrial Technology, Cogeneration/Advanced Systems Budget
March 24, 1995

INTRODUCTION

Solar Turbines Incorporated endorses the United States Department of Energy's Advanced Turbine Systems (ATS) Program and appreciates the opportunity to offer this document in support of its testimony before the United States House of Representatives Appropriations Committee's Subcommittee on Interior and Related Agencies.

Solar Turbines strongly supports the initiatives of the 104th Congress to significantly reduce the national debt and relieve individual and commercial tax burdens. We recognize that to accomplish these important goals, major reductions will be needed in all of government. As the Congress addresses the Department of Energy (DOE) budget, we are most concerned about how major cost reductions will be accomplished. Our company will watch with great interest as 1995 budget recisions are proposed and 1996 budget deliberations begin.

It is Solar's view that the DOE must continue to play a vital role in enhancing the competitiveness of U.S. industries, where its efforts focus on partnerships with both manufacturing and user industries to develop highly energy efficient, environmentally beneficial products. The DOE's mission is to assure that our natural resources are carefully managed while continuing to provide low-cost energy to industry and households alike. Through the combined efforts of industry and the DOE, numerous programs are either in progress or under development that will allow energy users to have available to them several high-efficiency, low-cost, environmentally sound, electrical energy conversion systems.

BACKGROUND

Solar and other gas turbine manufacturers are members of a larger fraternity known as the Energy Conversion Industry. Our interest as an industry representative is broad because Solar designs, manufactures, packages and services gas turbine systems. Critical to the industry are economics, efficiency and emissions. These are equally critical to you. Gas turbine systems are applied to the exploration, production and delivery sectors of the oil and gas industry and provide the energy conversion systems that are used at "the other end of the pipe" to generate mechanical and electrical power for industry and utilities to manufacture and deliver their products to a worldwide marketplace.

As a U.S. owned and operated company, Solar is aware of the need to develop new technologies that will result in products that will reduce our dependence upon foreign oil imports and establish balance in our foreign debt. This will be accomplished by exploiting our natural gas supply and increasing the infrastructure to accelerate the conversion to this more clean and efficient resource and to create U.S. jobs during the process. Of course, technological leadership in these areas will naturally translate into international sales of U.S. developed, energy conversion products before our foreign competitors, thus helping the rest of the world to clean up the environment and resulting in an improved balance of payments for the U.S. economy.

We believe that U.S.-based industry is on the appropriate strategic path regarding the development of advanced technologies to meet the energy needs of our country and the world. The DOE has played a critical leadership role in these efforts. The ATS program provides the best near-term opportunity to accelerate the advanced engine system developments that will allow us to compete on a worldwide basis with foreign companies and foreign-owned U.S. companies that are already on a government-subsidized path toward the same end. No other energy conversion program will be able to meet the established near-term goals, as shown in the following table:

*Competing Systems for Electrical Generation**

System	Availability, %	NOx Emissions, ppm	Installed Cost, $/kW	Thermal Efficiency, %
Advanced Turbine Systems	98	5	650	42.8
Gas Turbine-Combined Cycle	92	9	700	58
Conventional Gas Turbine	95	25	650	34.5
Molten Carbonate Fuel Cell	97	Trace**	3000	52.9
Reciprocating Gas Engines	91	42	600	39

* Data from EPRI Technical Assessment Guide

** Does not include all emissions at other sources.

GOVERNMENT ASSISTANCE IN TECHNOLOGY DEVELOPMENT

In past years, producers of industrial power systems have introduced incremental improvements in efficiencies and environmental quality, while focusing on high availability and durability standards to meet customer expectations. They have not had the resources necessary to institute the investment required to large-scale improvements at a rate commensurate with our needs for energy and our desires for a cleaner environment. Through the ATS program, the DOE has focused the resources of the entire Energy Conversion Industry on the development of ultra-high efficiency, low emission gas turbines. Broad-based consumer industries are also participating as cost-sharing demonstration sites. The results of this strategic program will change the buying criteria for the U.S. and the rest of the world.

In response to established national priorities, the DOE has set into motion a number of cooperative programs with industry to significantly improve efficiencies and diversify fuel usage. This will provide our energy requirements, while decreasing the amount and type of pollutants emitted to the atmosphere. By implementing the industrial ATS program, increases in thermal energy conversion efficiencies of over 15% can be obtained from first using clean natural gas, then biomass gas or coal-fuel gases to produce both industrial electrical power and process heat, while significantly reducing emissions. Additionally, ATS provides an affordable solution for private industry, in cooperation with electric utilities, to restructure power generation technology toward the goal of dispersed electrical power production.

This government/private industry partnership is reshaping America's global competitive future, providing domestically designed and produced, low-cost, and environmentally benign power generating systems to supply the energy our nation will require to remain a competitive industrial force in the global marketplace. Government plays a legitimate and proper role by setting the goals and objectives that will ensure that the long-term economic growth of the country is secure and well planned, our natural resources are conserved and consumed wisely, and the environment is protected. Higher efficiencies in the power generation and automobile industries are excellent examples of the government's interest in preserving our natural resources. Another is the inclusion of environmental standards in new product development programs within the R&D sector. The key to our government's success is not to dabble in technology selection, but rather to stick to what it does best -- and that is national goal setting, leaving the technology selection and road map to success in the hands of the industrial partner and technology pacesetter.

The U.S. government's entrance into industry-led partnerships for research, development, demonstration, and even market penetration has resulted in significant technology successes. Wherever the U.S. government has sought U.S.-owned industrial partners to develop new, comprehensive technologies, that selection has led to breakthrough products with the high risks and initial development costs jointly borne by the industry and the government. Historically, competing companies have benefitted from the efforts of the pathfinder industrial partnership and produced similar products, often improved upon, with a far smaller investment and without losing their place in the competitive cycle. The net result of this process has been to continually elevate U.S. technology so that our nation competes more effectively in a worldwide market, getting to the customer first. This is not viewed as technology selection, but rather as technology and innovation stimulation. Today's jet aircraft engine and the swept-wing transport are examples of industry/government partnerships. Similar examples can be found throughout the country where many manufacturing communities have competed for and participated in government programs with improved products and increased company growth as a result.

SCOPING THE PROBLEMS

Government (DOE/EIA) estimates of required power generation capacity are currently at 15 gigawatts annually after the year 2000. The products required to meet the increased demand for power will have to be highly efficient and environmentally clean. This new market will require products that have a life cycle of approximately 30 years. Products which meet the ATS program goals will fulfill this requirement. Additionally, and outside the scope of the aforementioned estimates, many older power generation equipment sites are reaching the end of their life cycle and will need to be repowered with the same efficient and clean machinery.

The concept of distributed power generation is becoming accepted by major power producers due the problems created by transmission line limitations and losses, and the increasing tendency for power users to generate their own power "inside the fence." Without government's shared investment in technologies required for future power generation products, new or replacement equipment will not be able to meet the 1.9 billion dollar per year fuel import reduction goals set forth by the DOE by the year 2000.

Despite efforts to the contrary, the U.S. has been slowly increasing its dependence on imported oil. In 1973, for example, the U.S. imported 36% of the oil it consumed. In 1994, by contrast, this increased to 49%. The rise is expected to continue until the increased efficiencies promoted by the DOE ATS program are realized and market placement of the newly developed technologies is accomplished.

This annual rate of increase represents a drain on our balance of payments. With a growing demand for non-domestic petroleum products and the associated negative consequences, the U.S. could find itself in a position of being a debtor nation whose investments and, thus, credit ratings will diminish. The world's most advanced nation cannot afford to allow that to happen.

SOLVING THE PROBLEMS

The solution is at hand.

The DOE program will provide more rapid changes to more accessible, environmentally preferred and secure domestic fuel sources, such as natural gas. This is one element of the solution to reduce oil usage by providing a diversity of technology choices for power production to meet our growing requirements. The U.S. will accelerate the containment and eventual reduction of oil imports.

From the standpoint of national interests, ATS is a strategic program. From our industry perspective, the action plan is clear. Without the government investment in the push to achieve higher thermal efficiencies and lower emission rates, the marketplace and the product manufacturers will introduce the required technology when their resources allow. For the government to invest massive amounts of money to force an unrealistic acceleration of the technology and product development would be a waste of precious resources and defeat the current push to downsize the federal budget. However, a balanced approach to allowing the product technology to develop along the path it needs to travel, but accelerating the schedule to meet useful dates for product placement is the ideal approach. Our recommendation is to keep the ATS program on schedule and fund it as originally conceived, placing the U.S. government in a partnership position to support the U.S. Energy Conversion Industry's capability to meet national energy and environmental goals.

In support of the push to convert much of the American industrial fuel usage from conventional coal and import oil to natural gas, biomass fuel and coal-fuel gases, the ATS program will be able to help stem the slide of the U.S. dollar by:

1. Using our own natural resources and thus decrease oil imports,
2. Reducing the cost of fuel from production to end usage,
3. Contributing to the expansion of the natural gas system,
4. Expanding exports,
5. Enhancing the environment by using inherently clean, highly efficient, natural gas-burning power generation equipment,
6. Mitigating the impact of higher fuel costs through higher efficiencies,
7. Creating a system capable of using a broad range of fuels,
8. Making efficient use of the expanded range of fuels,
9. Extending the availability of our natural resources and, in the process,
10. Creating thousands of jobs required to accomplish all of the above.

The ATS program will help the Energy Conversion Industry realize those goals. In addition, once the technologies promoted within the ATS program are matured, they can be exported to other countries whose environmental and resource-saving goals are essentially the same as ours. This, in turn, creates more jobs in the gas turbine industry and the export opportunity will generate foreign revenues that will reduce our trade imbalance.

The ATS program is a critical element within our National Energy strategy. This program, as directed by the DOE, provides the surest and swiftest path to high efficiency clean energy. Industry is fully committed to the program. Solar respectfully requests that the Committee fully fund the Office of Industrial Technology, Cogeneration/Advanced Systems budget to the level required to maintain one contract on the tight schedule required as follows:

Task Elements	FY96 Funding Level, $
Ceramic Retrofit Gas Turbine Program	10,100,000
ATS Component Development	21,800,000
ATS Material Base Technology	3,900,000
Long-Term Ceramic Testing	600,000
ATS Support	250,000

With cost sharing in excess of 60% being offered and with the returns mentioned before, the program constitutes a high value and meritorious use of public funds.

Mr. REGULA. Would this be the type of thing that Cooper Bessimer would produce?

Mr. CARROLL. Yes, sir. Cooper Bessimer is a packager of turbines and we manufacture the turbines and package as well and we have worked over the years with Cooper.

Mr. REGULA. So you would supply a component to them?

Mr. CARROLL. That is correct.

Mr. REGULA. The reason I ask, I have visited their plant and it is in my district and I have seen these huge compressors and I assume this is what you are talking about.

Mr. CARROLL. That is correct.

Mr. REGULA. What throws me is the solar.

Mr. CARROLL. We were in the solar aircraft industry. Ryan's airplane was built in our factory and I suppose that is a bad name for an aircraft company as well when you think about it, but 63 years ago, we began the Solar Aircraft Company and——

Mr. REGULA. So that is just your commercial name.

Mr. CARROLL. That is correct.

Mr. REGULA. Mr. Nethercutt.

Mr. NETHERCUTT. I have no questions. Thank you.

Mr. REGULA. Thank you very much. Should be a great export market with the development of natural gas overseas, right?

Mr. CARROLL. It is a significant market. We export today, as I said, around 60 percent. That is around $700 million of U.S. goods and services. In the U.S., of course technology leads that industry. We want—we would like to keep it there.

Mr. REGULA. I would like to spend more time with all of you but this is the way it is. Very interesting.

FRIDAY, MARCH 24, 1995.

DOE: STATE ENERGY PROGRAMS

WITNESS

LARRY L. BEAN, CHAIRMAN, NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

Mr. REGULA. Next, the National Association of State Energy Officials, Mr. Bean.

Mr. BEAN. Good morning, Mr. Chairman. I appreciate the opportunity to appear before you as you consider the Department's fiscal year 1996 budget request.

I would like to start off, however, by thanking you for your forthright comments to the 54 States, territories, and District of Columbia at their winter meeting last month here in Washington D.C. The members definitely appreciate, sincerely appreciate, your succinctly portraying the real challenges we face.

I administer the energy and geology programs in the State of Iowa and I am also the Chairman of the National Association of State Energy Officials. The States view the funding levels requested by the administration as critical to achieving the national goals of lessening America's dependence on foreign energy supplies, the creation of jobs in new industries through new energy technologies, and the minimization of the environmental impacts of energy use through these programs: The State Energy Conservation

Program, or SECP, the Institutional Conservation Program, Alternative Fueled Vehicles State and Local Incentive Program, Building Code Upgrade, Training and Technical Support Program, National Industrial Competitiveness through Energy, Environment, and Economics, and the Home Energy Rating Systems, States grants.

We have also traditionally supported continued funding for the Weatherization Assistance Program, the State Heating Oil and Propane Program, the Federal Energy Management Program, the International Programs line item, the Rebuild America, the Municipal Energy Management Program, and the important work of the Energy Information Administration.

Mr. REGULA. I ask you, will the States be willing to make a larger contribution to these programs?

Mr. BEAN. I think the States are willing to make a larger contribution and I will give you a specific example, as well as those examples that I included in my written testimony of where that is occurring and where the States have made larger contributions than are required in law for the specific programs.

SECP is a specific program, the State Energy Conservation Program, that is ahead of its time in the context of today's times and here in Washington D.C. in that it is a model of the type of Federal-State partnership that the new Congress is attempting to support, a program which has provided increased flexibility to the States, while achieving national objectives.

I believe, as does my Governor, that the Federal Government and the States in the area of energy policy is of prime importance to the competitiveness of our Nation's economy and should be maintained. We believe DOE does a fine job of energy research; however, an important complement to that research is the strength of State programs in breaking down the institutional regulatory and financial barriers that prevent cost-effective, new energy technologies from being fully embraced by the marketplace. Over the years, the States have developed very effective delivery mechanisms to deploy these new technologies.

Let me talk just about the Iowa program. As I say, my testimony has some examples of other States and I can provide you examples from each of our States. In Iowa, we have a building energy management program. This has as its objective to obtain by the year 2003 $100 million worth of cost-effective energy efficiency improvements in billings operated and maintained at taxpayer expense, generating an annual savings of $50 million by the year 2000.

We are over a third of the way there. We have $66 million in the ground generating $12 million a year in savings, all with less than $4 million of Federal assistance. That is an example of the kind of leveraging we do in the kinds of programs that I am talking about here today. Sixty-six million dollars worth of improvements with private sector money leveraged with $4 million worth of Federal dollars generating $12 million in reduced energy expenses for the taxpayer on an annual basis.

Mr. REGULA. You have about 30 seconds.

Mr. BEAN. All right.

We are exploring the concept of consolidating the programs I listed at the beginning of my testimony. The programs could work in the context of a flexible block grant. We are currently involved in discussions with the authorizing committees with the Department—and with the Department on consolidating many of these programs that could result in some savings.

Thank you, sir.

[The statement of Mr. Bean follows:]

NASEO *National Association of State Energy Officials*

Testimony of Larry L. Bean
Chair, National Association of State Energy Officials
Before the Subcommittee on Interior and Related Agencies
House Committee on Appropriations
March 24, 1995

Mr. Chairman, Subcommittee Members, I am pleased to have the opportunity to appear before you as you begin to consider the Department of Energy's Fiscal Year 1996 funding levels for energy programs.

We are supportive of the funding levels requested by the Administration for the following programs which the States view as instrumental to achieving the national goals of lessening America's dependence on foreign energy supplies, the creation of jobs and new industries through new energy technologies, and the minimization of the environmental impacts of energy use: (1) State Energy Conservation Program (SECP) - $24.651 million; (2) Institutional Conservation Program (ICP) - $26.849 million; (3) Alternative Fueled Vehicles State and Local Incentive Program (Section 409 of EPACT) - $3.4 million; (4) Building Code Upgrade, Training and Technical Support Program - $8.420 million; (5) National Industrial Competitiveness through Energy, Environment and Economics (NICE3) - $8.5 million; and, (6) Home Energy Rating Systems, State Grants - $1.5 million.

We have also traditionally supported continued funding for the Weatherization Assistance Program, the State Heating Oil and Propane Program (SHOPP), the Federal Energy Management Program, the International Programs line item, Rebuild America, the Municipal Energy Management Program and the Energy Information Administration's enormously important activities, and we continue to do so today.

I am the Administrator of the Iowa Division of Energy and Geological Resources and Chairman of the National Association of State Energy Officials (NASEO), and I am testifying on behalf of NASEO. NASEO is an organization composed of energy offices in 54 states, territories and the District of Columbia.

Mr. Chairman, you and your Subcommittee have in the past strongly supported continued funding for energy activities carried out through the States including the State Energy Conservation Program (SECP) and the Institutional Conservation Program (ICP). This year's budget request from the Department of Energy for these programs is a direct reflection of your

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support and that of your colleagues on a bi-partisan basis for these valuable programs throughout the last decade.

We recognize that there has been a significant change in the philosophy of government here on Capitol Hill and in the States. I am pleased that SECP has been ahead of its time as a model of the type of federal/state partnership that the new Congress is attempting to support -- a program which has provided increased flexibility to States while achieving national objectives. I believe, as does my Governor, that the partnership between the federal government and the States in the area of energy policy is of prime importance to the competitiveness of our nation's economy and should be maintained. We believe the Department of Energy (DOE) does a fine job in research; DOE's network of laboratories has helped develop many of the energy efficiency, renewable energy and natural gas technologies moving into the marketplace today. The States also have a network of research laboratories which complement the DOE activities. However, one strength of State programs is in breaking down the institutional, regulatory, and financial barriers which prevent cost-effective new energy technologies from being embraced fully in the marketplace. Over the years, States have developed very effective delivery mechanisms to ensure the deployment of new technologies. We work closely with the private sector -- as a matter of fact, for every dollar the federal government invests in SECP, we leverage another 19 dollars in public and private funding -- and the DOE and its' Laboratories. The following are good models of our activities:

Agricultural Energy Programs in Colorado
Colorado's Energy Conservation in Agriculture Program is an innovative effort which began with an investigation of the potential for energy savings in irrigation wells and pumps, and was expanded to included photovoltaic stock watering systems, conservation tillage, tractor efficiency and energy efficiency for farms. In the first five years of the program, $1.35 million in federal and State funds, and private investment from farmers and ranchers have been spent on efficiency measures. The savings total $11.56 million, or $9 saved for every $1.

Recycling Spent Potliner from Aluminum Smelters
A collaborative effort between the Washington State Energy Office, the State Department of Ecology, the U.S. Department of Energy and other partners helped Columbia Aluminum develop a process to recycle spent potliner (SPL), a substance which may be banned from landfills. Conventional aluminum production techniques generate 2%-4% SPL by weight of aluminum produced. The recycling technique developed (a plasma torch process) generates carbon monoxide which is used as fuel for gas turbines. Landfill disposal is eliminated, because the SPL is recycled into products. The cost of producing aluminum will be reduced by $8.40 per ton, or $1.4 million per year at the Columbia Aluminum plant. This technique can be used in other U.S. smelters to increase competitiveness in a very difficult international market.

Iowa Energy Bank
The Iowa Building Energy Management Program will install all cost-effective energy efficiency measures in our public facilities by the turn of the century. This is a $300 million

initiative with $50 million in annual savings projected. The program has already completed $66 million in improvements (with an additional $70 million in progress), saving $12 million annually for the public entities with an investment of public funds of only $4 million. The program includes engineering assistance, financing for improvements and ongoing monitoring of energy savings. Currently, savings exceed projections by 8% of estimates, meaning the program is achieving 108% of projected savings. The program requires no up-front capital expenditure and the financing is self-supporting from the energy savings. Utilities work with the program to offer additional incentives for improvements. The partnership with utilities and other stakeholders including the Iowa Hospital Association and the Iowa School Board Association is vital to the success of the program. This has permitted a broad range of public schools, hospitals and prisons to reduce avoidable energy costs, while investing more resources toward health care and education.

Ohio Department of Development Industrial Assistance Program
The Ohio Energy Office, working with AMPCO Metal Manufacturing Systems and DOE's NICE3 program developed an electric induction heating process for superheating reservoirs of molten alloys in a continually heated open holding furnace or tundish, replacing conventional fuel oil or gas heating methods. The energy efficiency of the reservoirs increased 98% and pollution from the process is substantially reduced. Waste reduction totaled 80%. The total cost of the project was $700,000 and was cost-shared. Operation and maintenance savings at the AMPCO facility are $1.2 million per year. When this technology is adopted at foundries across the country, energy savings will total $5.8 million per year and pollution prevention of 147 million pounds per year will be achieved, while, most importantly, allowing U.S. business to more effectively compete in international markets and preserve jobs in this country.

These four examples are reflective of the innovation, the skills at leveraging funding, and the ability to identify and involve critical program participants in all of our States. Overall, virtually all of the state energy offices operate programs targeted to increasing the economic competitiveness of industry, have programs targeted to the commercial sector, and work to ensure that homeowners have affordable housing. These state programs are developed in conjunction with market participants from all sectors of the economy and all sizes of business, especially small and medium-sized operations, to meet the needs of the States and national policy goals. The State's have a diversified portfolio of strategies designed to achieve national goals yet tailored to state needs.

Consolidated Programs
The concept of consolidating programs that affect the States has been discussed quite a bit of late. The federal/state partnership in energy policy is based fundamentally on the State Energy Conservation Program, which functions like a flexible block grant. In 1990, in the State Energy Efficiency Programs Improvement Act (P.L. 101-440), Congress worked with the States on a bi-partisan basis to dramatically increase flexibility, which also permitted the later elimination of the Energy Extension Service. NASEO is currently involved in discussions with the authorizing committees and with the Department on consolidating many of the programs detailed at the start of this testimony into SECP, thus minimizing the

administrative costs associated with multiple programs both at the federal and state levels. We look forward to working with this subcommittee to develop a reasonable plan which improves program delivery, reduces red tape and saves money.

The new Congress is opposed to unnecessary regulation, and wants to minimize federal control over States and localities. Yet, there is a significant federal interest in the energy because energy is the fuel that drives the engine of our economy.

It should also be stressed that the state energy offices serve as the energy emergency preparedness and response arm of state governments. This function is made more critical in light of the predictions made by analysts such as ex-Secretary of Energy Hodel that we face the potential of another serious disruption of Persian Gulf oil supplies. We are very much concerned as our dependence on oil imports exceed the 50% level, that we do not lose sight of the fragile nature of our energy situation. In addition, efficient energy use and the use of the most cost-effective energy supply technologies is critical to our economic competitiveness. For the average taxpayer, energy is the second highest cost associated with their home, after rent or the mortgage, so efficiency and low-cost resources are also critical to our citizens. There is a federal interest in protecting the environment and how we generate and use energy has a profound impact on our world. Dependence on foreign energy sources has a serious impact on our trade deficit, another critical national issue.

State energy offices are generally not regulatory agencies. We work with the private sector through voluntary partnership programs which, in the aggregate, address the important federal interests detailed above. While a hospital administrator in Arizona that installs efficient lighting and an energy management system or a homeowner in Illinois that qualifies for an energy efficient mortgage may not realize that they are helping the nation meet economic goals, they do know their own energy bills are lower. When a factory owner in Alabama cogenerates electricity or a company in Montana builds a new plant to produce biodeisel, they may not realize they are reducing pollution and displacing foreign fuels, but they do know they have a new profit center in their operations. When we train a building manager in Nevada how to make his heating, ventilation and air conditioning (HVAC) system work at peak efficiency or help a university in Oregon run its steam plant and district heating system more efficiently, they know their facilities are working better, but may not recognize the societal interests which are being served.

State energy offices don't deal with mandates -- we deal with possibilities and economic results: the possibilities of reducing costs, of developing new industries, of making homes more affordable, and of creating jobs. Because of a single voluntary program started in Alaska with SECP funding, the average new home in that State is 45% more energy efficient than it was just ten years ago. This program, home energy rating systems, has moved out to 15 other States and should double over the next five years. Our revolving loans funds and technical assistance programs have helped develop markets which didn't exist 15, 10 or even 5 years ago.

With your continued help and support we can sustain the progress which has been achieved through the federal/state partnership in the energy field. Thank you.

Mr. REGULA. Well, State-Federal partnerships are the in thing so I am glad to hear you say that you support that concept.

Mr. BEAN. Yes.

Mr. REGULA. And I am also happy that you are working with the authorizing committees because that is an important element here. Thank you very much.

FRIDAY, MARCH 24, 1995.

BUREAU OF MINES: ARCTIC SLOPE COAL

WITNESSES

ALMA UPICKSOUN, ASSISTANT HOUSE COUNSEL, ARCTIC SLOPE REGIONAL CORPORATION

BOB LAWRENCE, PRESIDENT, BOB LAWRENCE AND ASSOCIATES

Mr. REGULA. Arctic Slope Regional Corporation, Alma Upicksoun.

Ms. UPICKSOUN. My name is Alma Upicksoun, and I am Assistant House Counsel for Arctic Slope Regional Corporation, which is the Native corporation created under the Alaska Native Claims Settlement Act, and our office is headquartered in Barrow, Alaska. I represent the northern region.

[The statement of Ms. Upicksoun follows:]

TESTIMONY BEFORE THE HOUSE INTERIOR APPROPRIATION'S COMMITTEE
BY ALMA UPICKSOUN

MR. CHAIRMAN, AND MEMBERS OF THE SUBCOMMITTEE, MY NAME IS ALMA UPICKSOUN. I AM ASSISTANT HOUSE COUNSEL FOR ARCTIC SLOPE REGIONAL CORPORATION, THE NATIVE CORPORATION CREATED UNDER THE ANCSA AND HEADQUARTERED IN BARROW, ALASKA. I APPRECIATE THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY AND DISCUSS OUR WESTERN ARCTIC COAL RESEARCH PROJECT.

THE NORTH SLOPE OF ALASKA CONTAINS THE LONGEST AND HIGHEST GRADE COAL DEPOSITS IN THE UNITED STATES; HOWEVER, BECAUSE OF LOCATION AND CLIMATE THE MOST CHALLENGING TO DEVELOP. WE HAVE BEEN WORKING IN COOPERATION WITH THE BUREAU OF MINES TO DEVELOP A TECHNICAL DATABASE OF MINE DESIGNS AND METHODS OF OPERATION TO MEET STRICT, ENVIRONMENTAL STANDARDS FOR ARCTIC TERRAIN DEVELOPMENT.

WE HAVE JUST COMPLETED OUR FIRST YEAR'S PROGRAM WITH THE BUREAU OF MINES AND THIS COOPERATIVE AGREEMENT HAS BEEN VERY PRODUCTIVE. THE TASKS BEING ADDRESSED ARE THOSE LAID OUT IN THE ORIGINAL APPROPRIATIONS REPORT LANGUAGE. THIS REPORT OUTLINED A $1.6 MILLION PROGRAM OF WHICH $600,000 HAS BEEN APPROPRIATED FROM FY93 MONIES. I AM HERE TODAY TO REQUEST THE REMAINING $1 MILLION IN ORDER TO ACHIEVE THE IMPORTANT AND NEEDED PROJECT GOALS.

ASRC HAS ALL BUT MATCHED THE $1.6 MILLION SINCE THE SIGNING OF THE COOPERATIVE AGREEMENT.

THE COOPERATION BETWEEN ASRC AND THE BUREAU OF MINES IS ALLOWING THE BEST MINING TECHNOLOGY AVAILABLE TO BE APPLIED TO THE PROJECT. THIS TECHNOLOGY WILL THEN BE AVAILABLE FOR OTHER ARCTIC MINING PROJECTS, INCLUDING THE RED DOG MINE JUST SOUTH OF OUR LANDS

THE DEVELOPMENT OF THE WESTERN ARCTIC COAL REPRESENTS THE NEXT MAJOR ENERGY DEVELOPMENT ON THE NORTH SLOPE. WITH PRUDHOE BAY, ON THE DECLINE, THIS WILL BE OUR ONLY VIABLE ENERGY DEVELOPMENT AVAILABLE FOR OUR SHAREHOLDERS AND FOR THE VILLAGES WHICH FACE EVER INCREASING COSTS IN HEATING THEIR HOMES IN THE ARCTIC. WE MUST PREPARE AND PLAN FOR THE FUTURE AND PROVIDE JOBS, ECONOMIC GROWTH AND SELF-SUFFICIENCY FOR OUR REGION.

OUR CURRENT COOPERATIVE AGREEMENT RESIDES WITH THE BUREAU OF MINES TWIN CITIES RESEARCH CENTER. WE WOULD LIKE TO EXPAND OUR COOPERATIVE AGREEMENT WITH THE BUREAU OF MINES TO

INCLUDE THEIR PITTSBURGH RESEARCH CENTER. BOTH CENTERS HAVE IN-HOUSE CAPABILITIES AND EXPERTISE TO ADDRESS SPECIFIC CHALLENGES ON DIFFERENT ASPECTS OF ARCTIC COAL MINING.

THE $600,000 PREVIOUSLY APPROPRIATED HAS GOTTEN US STARTED ON THIS IMPORTANT COOPERATIVE PROJECT. THIS COOPERATIVE AGREEMENT ALLOWS THE BUREAU OF MINES TO HAVE A MAJOR IMPACT IN ARCTIC MINING RESEARCH WITH FEWER FEDERAL DOLLARS SPENT.

RESEARCH GOALS FOR OUR FY96 REQUEST FOR $1 MILLION ARE:

(1) CONTINUED ARCTIC RECLAMATION RESEARCH.

(2) PERMAFROST EFFECTS ON UNDERGROUND MINE DESIGN.

(3) RESEARCH MINE VENTILATION CRITERIA FOR COLD CLIMATES.

(4) IDENTIFICATION OF SPONTANEOUS COMBUSTION AND METHANE POTENTIAL

(5) SURFACE HYDROLOGY MODELLING.

(6) IDENTIFICATION OF SUBSURFACE SALE POCKETS.

WE APPRECIATE THE OPPORTUNITY TO APPEAR BEFORE YOU THIS YEAR AND WE THANK YOU FOR SUPPORTING THIS UNIQUE AND SIGNIFICANT RESEARCH PROJECT.

Mr. REGULA. Just a certain portion?

Ms. UPICKSOUN. Right.

I appreciate the opportunity to talk today about the western coal project which we have been working with the corporation with the Bureau of Mines to develop.

Mr. REGULA. This is a coal project?

Ms. UPICKSOUN. Coal project. The north slope of Alaska contains the largest and the highest grade coal in the United States and because of the location and climate of this coal, it is probably——

Mr. REGULA. How do you get it to market?

Ms. UPICKSOUN. Well, there have been several proposals looked at and one is to bring the coal down to another mining area that is being developed called Red Dog Mine and ship it from there trans-Atlantic—or trans-Pacific, and some other possibilities of actually bringing barges into the area of the north slope.

The region is difficult to develop just in terms of the ice conditions that are there.

Mr. REGULA. Is it a bituminous site?

Ms. UPICKSOUN. Bituminous.

Mr. REGULA. Low sulfur?

Ms. UPICKSOUN. Low sulfur, low ash.

Mr. REGULA. So it would be good for the utility industry with air emissions being a problem.

Ms. UPICKSOUN. Very much so.

Mr. REGULA. But is it mined by open pit or slope or shaft?

Ms. UPICKSOUN. There are several different areas where mining is being looked at. This one particular area will be by shaft, various seams in the earth.

Mr. REGULA. Is there more than one seam?

Ms. UPICKSOUN. There are several. This area, the actual area of the coal is quite extensive. We are focusing on a particular area that has the highest quality and the most accessibility.

Mr. REGULA. How thick are the veins?

Ms. UPICKSOUN. I think over 20——

Mr. LAWRENCE. Eighteen foot is the normal.

Mr. REGULA. That is very productive.

I guess the biggest hurdle would be to overcome the transportation cost to get it to market.

Ms. UPICKSOUN. That is one of the——

Mr. REGULA. You are asking, I assume, for some financial help to, what, develop to bring this to market?

Ms. UPICKSOUN. Well, that is part of it. What the cooperative agreement with the Bureau of Mines has included is a research project that looks at the various aspects of developing mining technology for the arctic. Mining and permafrost create some different types of problems than in other areas and this is what we have been focusing on most specifically. But the aspects of marketing and transportation and developing a system that would allow distraction and removal has definitely been a focus of that as well.

Mr. REGULA. And this coal reserve is owned by the group that you represent?

Ms. UPICKSOUN. It is a private——

Mr. REGULA. Do you have any interest on the part of the private sector in participating in development costs?

Ms. UPICKSOUN. Well, this program with the Bureau of Mines has been just that. It has been a 50/50 cost share where Arctic Slope, along with other monies, has provided funds to look at various aspects of this research and development, and because it is a unique situation and because of the environmental restrictions in the area, it has been something new.

Mr. REGULA. Could this be done year-round or would it be periods of time when it would be just impossible? You mentioned barges. You have to be ice bound part of the time.

Ms. UPICKSOUN. They would only be able to make pickups during certain parts of the year, but stockpiling a larger amount of that coal——

Mr. REGULA. So you stockpile and move it out during the warm season?

Ms. UPICKSOUN. Right.

Mr. REGULA. Is there a market other than the United States, like Japan, for example, or Europe?

Ms. UPICKSOUN. We are looking now at the Pacific Rim, Japan, Korea, possibly Russia, and China as well.

Mr. REGULA. Sounds interesting. The coal is going to be an important energy source for decades.

Ms. UPICKSOUN. It will be and this does contain, like I said, the largest coal deposit in the United States.

Mr. REGULA. Thank you for your testimony. It will be interesting to read as I have a little background in the coal business. Thank you.

[The statement of Ms. Imm follows:]

BIOGRAPHY OF TERESA A. IMM

Teresa Imm is Resource Development Manager for the Lands Department of the Arctic Slope Regional Corporation. The Arctic Slope Regional Corporation (ASRC) is one of the most successful corporations of the 13 regional Native Corporations established by Congress under terms of the Alaska Native Claims Settlement Act of 1971.

As Resource Development Manager, Ms. Imm is responsible for energy and minerals evaluation and development of ASRC's nearly five million acres. During her tenure at ASRC she has successfully managed projects with budgets greater than $2M. For the last three years Ms. Imm has served as Project Manager of the Western Arctic Coal project. Ms. Imm is currently engaged in finalizing feasibility of developing ASRC's coal resources in the western Arctic. The Western Arctic Coal fields represent one of the highest quality bituminous coals in the world. She recently coordinated efforts which established the Kuchiak Research Mine, an underground coal mine in the Arctic, to evaluate the effects permafrost may have on mine safety, design, and reclamation techniques.

Ms. Imm is also involved in ASRC oil and gas related evaluations and issues. Much of this work consists of exploration and subsurface evaluation of ASRC lands. Ms. Imm has over 12 years geological experience in evaluation of the Arctic National Wildlife Refuge (ANWR). In addition to ANWR experience and background Ms. Imm has worked extensively throughout the Brooks Range and in the subsurface of the North Slope in evaluation of petroleum, coal, and base-metal sulfides.

Prior to employment with the Arctic Slope Regional Corporation Ms. Imm was Associate Vice President with ASCG Incorporated, a wholly-owned subsidiary of ASRC. While at ASCG Ms. Imm was strictly involved with resource evaluation of ASRC lands. Prior to her employment with ASRC she was employed by the State of Alaska Division of Geological and Geophysical Surveys. During employment with the State she gained vast knowledge of the geology and resources of the Brooks Range and North Slope of Alaska. Ms. Imm has also worked for Sohio Alaska Petroleum Company in the development geology group for Prudhoe Bay.

Ms. Imm's broad geologic and technical background and intimate knowledge of the geology and resources of the North Slope have allowed her to develop important skills and professional relationships necessary to organize remote research projects in the Arctic.

WESTERN ARCTIC COAL RESEARCH

Presented By:

TERESA A. IMM
Resource Development Manager
ARCTIC SLOPE REGIONAL CORPORATION
Anchorage, Alaska

Mr. Chairman and Members of the Subcommittee. My name is Teresa Imm, and I am Resource Development Manager at Arctic Slope Regional Corporation (ASRC), and Program Manager for the Western Arctic Coal Research project. ASRC is one of thirteen Alaska Native Corporations formed by Congress in 1971 under the Alaska Native Claims Settlement Act. ASRC manages the land and business interests of its more than 6,500 Inupiat shareholders. Its land holdings include approximately five million acres across the North Slope of Alaska. I appreciate the opportunity to appear before you today to discuss our Western Arctic Coal Research project. I also am pleased to report that we have just completed our first years program with the Bureau of Mines and am happy to report this cooperative agreement has been very productive. Our first increment of funding of $600K from FY93 monies is almost depleted. I am here today to request the final $1M for a total of $1.6M for this program, consistent with our testimony of the past four years. We also are prepared to provide an equal or greater amount in cost share for this project as we have been doing. Since signing of the cooperative agreement we have applied over $1.5M of non-federal funds to the tasks identified in our agreement.

Since 1980, we have spent over $17M on studies and mine development at our Deadfall Syncline site in the Western Arctic Coal Field, these funds coming from the State of Alaska (Alaska Energy Authority, Alaska Department of Community and Regional Affairs), the North Slope Borough, and ASRC. We are pleased to have the Bureau of Mines involved in this effort, for this will allow the best mining technology available to be applied to our project on a cooperative basis. As you are aware, Mr. Chairman, the Inupiat people have populated this region for thousands of years, and they have a firm desire to see any project carried out on their lands to be accomplished in the safest and most environmentally sound manner possible.

Permit me, if you will, to restate the exceptional importance of this project to the people of the Arctic region. It is a unique opportunity for employment, economic growth, and self sufficiency in this region. Environmentally, the coal we are mining is so free of sulfur and other impurities that combustion studies in Korea, Japan, and the United States have shown lower emissions from burning this coal than the present emissions from equipment fueled with refined oil. Lest there be any doubt, let me restate: The emissions from burning this coal are less than those from burning a comparable amount of fuel oil on a BTU basis. Clearly, this is a remarkable reserve, and we are exceptionally fortunate.

Mr. Chairman, nothing is more important to those who live on the North Slope than the preservation of the environment. The thousands of years of heritage of the people who live there are directly fused to the health and welfare of the animals, the fish, and the sea mammals which populate the region. Because of this, over $2,000,000 of our own funds have been spent since 1984 on environmental studies surrounding the mining operation. The titles of these studies are: Environmental Assessment (1985), Summary of Offshore Soil Conditions (1985), Onshore Embankment Sections (1985), Fisheries Baseline Studies (1987), Cultural Resource Site Reconnaissance Study (1987), Climate Summary for Deadfall Syncline and Cape Beaufort Area (1988), Environmental Assessment Appendix D (1988), Deadfall Syncline Archeological Survey (1989), Sediment Transportation Study (1988), Hydrology Survey Report (1988), Vegetation and Silts of the Deadfall Syncline Mining Area (1990), Water Analysis (1985 and 1990), and the studies required for the Deadfall Syncline Surface Coal Mining Permit Application. Results of the extensive studies and investigations found there are no particular environmental constraints that would restrict the project from going forward. Since 1990 our funds have gone toward diverse aspects of the overall project development such as: Aerial photography acquisitions (1993), Continued coal quality analysis (1990-94), Red Dog Port Analysis (1993-94), Market Research (1994) and Tundra Reclamation Studies (1992-95).

The first year of the cooperative research project with Bureau of Mines is now complete. The project is consistent with the Congressional language which accompanied the FY93 appropriation. The purpose of this cooperative project is to assess existing technology and develop new technology leading to design criteria for environmentally sound mining of Arctic Coal beds in Northern Alaska. The technology will comply with current State and Federal regulations for mine development, active operation, and closure. This research will contribute technology for creating a post-mined setting that is both aesthetically pleasing and acceptable for secondary use.

The project is of considerable significance, requiring the application of exceptional capability to get the needed research answers. It has been estimated that Alaska Arctic coal resources may total up to 5.5 trillion tons. More than half of Alaska's coal reserves are found in the Northern Alaska Coal Province with reserve estimates of greater than three trillion tons of coal. The Northern Alaska Coal Province, located entirely on the North Slope of Alaska, represents the largest coal province in the United States and ranks with the top two or three in the world. This coal province lies entirely within the continuous permafrost zone of Arctic Alaska. The Western Arctic Coal Fields are located at the western end of this vast coal province and contains reserve estimates of greater than two billion tons of coal. The production from this significant resource has been limited to only demonstrations and small operations producing coal for local communities.

Developing Arctic coal mines represents an immense challenge because of adverse weather conditions, isolation, accessibility problems, short shipping seasons, and a fragile environment. Before any significant development of Alaska's Western Arctic Coal can be considered, it will be necessary to develop a technological database of mine designs and mining methodologies which will meet strict, environmentally sound, performance standards established for Arctic terrains.

The technical approach taken in this cooperative research project is to establish the scientific parameters for the treatment of site materials, hydrologic protection, and restoration of the tundra/permafrost environment following the extraction of Western Arctic Coal. The research project is providing information and guidelines for reclamation planning and implementation to return Arctic mined lands to a stable ecosystem in an environmentally acceptable manner.

The Research Objectives of the first years funding are specifically to:

a) Determine stability of pits, spoil piles, and underground openings in permafrost zones;

b) Determine appropriate reclamation technology for pits, spoils, and other disturbed areas;

c) Provide suitable models for evaluating hydrologic flow in surface-thawed permafrost regions and to evaluate surface water quality from spoils, soils, and other mining activities and recommend suitable control and treatment strategies if necessary;

d) Evaluate the impact of social/economic factors on mining operations.

e) Determine safe and efficient blasting plans for permafrost.

f) Further evaluate coal resources in the region.

All local, state, and federal permits have been obtained to perform the work and research at the test mine. We are working closely with the Alaska Division of Mining, the Office of Surface Mining, and the Mine Safety and Health Administration to insure our test mine meets all regulatory standards, both from a safety standpoint and environmentally. All workers currently at the mine have received training in surface mining and a select number received special training for underground operations.

The overall Western Arctic Coal demonstration program includes coal use in local villages as well as the mining research. To date, some 2000 tons of coal have been mined for distribution to these villages. We are fortunate the extremely low sulfur content of this coal results in emissions below those experienced with present oil use. Coal fuel has been provided to the communities of Wainwright, Point Lay, and Point Hope. Fifty-eight coal burning stoves have been installed in these communities to demonstrate coal use in modern coal-burning stoves. Future potential customers include the communities of Nome, Kotzebue, Bethel, and the mineral mining operations at Red Dog. Studies of potential coal-fired electric generation equipment for Nome and Kotzebue have been completed. Results of these studies indicate high capital costs associated with conversion to coal power generation. Further studies are underway to determine alternative combustion technologies and modular constructibility techniques which may reduce costs of installation.

The Western Arctic Coal research mine has broken new ground on our understanding of mining in permafrost regions and is providing us with valuable information. Of particular interest are the effects permafrost has on rock and coal characteristics for underground mine design considerations. There are no similar mines in zones of continuous permafrost from which the test mine can draw information. Therefore all permafrost research needs to be initiated from ground zero and our research mine can be utilized as a prototype for other mines in the Arctic. After establishment of the underground research mine we have identified areas requiring additional and/or new research.

Our current cooperative agreement resides with the Bureau of Mines Twin Cities Research Center. We would like to expand our cooperative agreement with the Bureau of Mines to include their Pittsburgh Research Center. Both Centers have in-house capabilities and expertise to address specific challenges on different aspects associated with Arctic coal mining.

Research goals for our FY96 request of $1M are centered around:

a) Continued Arctic reclamation investigation including stabilization of stockpiles of frozen unconsolidated material;

b) Permafrost effects on underground mine design including: (1) rock and coal characterization for frozen material, (2) identification of thermal gradients in the roof, (3) testing of multiple configurations for roof support, (4) placing strain instrumentation in the roof to characterize roof deformation, and (5) test different types of water sealants on water sensitive rock types;

c) Research mine ventilation and evaluation of how to ventilate a coal mine situated in frozen ground;

d) Identification of spontaneous combustion characteristics and methane potential of the coal for mine safety considerations;

e) Surface hydrologic parameters for mined lands in permafrost; and

f) Identification of subsurface saline pockets in the region.

These research goals are consistent with the current work being accomplished under our FY93 cooperative agreement and provide the next logical step towards developing standards for Arctic underground mining. Development of our underground research mine provides a singular opportunity to study and collect data in the underground environment over the next three to five years while the research mine is open.

The $600K previously appropriated has gotten us started on this important cooperative project. This cooperative agreement allows the Bureau of Mines to have a major impact in Arctic mining research with fewer federal dollars spent. We have been consistent for a number of years in saying that the whole project will require $1.6M from the Federal Government to achieve the important and needed project goals. Therefore, we must, once again, ask you for the needed remaining amount of funds.

In summary, the Western Arctic Coal Fields are exceptional in quality and volume when compared to other reserves. Development of these reserves can provide a significantly increased standard of living for the native population of the North Slope. We wish to employ the best available mining knowledge and technology and share our findings with others so that all future Arctic mining can be done in the most efficient and environmentally sound manner. We appreciate the opportunity to appear before you, this year, and we thank you for supporting this unique and significant research project.

FRIDAY, MARCH 24, 1995.

DOE: FUEL CELL BUS PROTOTYPE PROGRAM

WITNESSES

REV. T. BYRON COLLINS, S.J.
REV. WILLIAM L. GEORGE, S.J.
REV. HAROLD C. BRADLEY, S.J.
JAMES T. LARKINS, PROGRAM MANAGER, FUEL CELL PROGRAM, GEORGETOWN UNIVERSITY

Mr. REGULA. Reverend Collins, Reverend George, and Reverend Bradley.

Rev. GEORGE. That is the trio, Mr. Chairman, but you have got me.

Mr. Chairman, members of the subcommittee and staff, thank you. I am Father George, Assistant to the President at Georgetown. We want to thank the committee. You have been consistent with this program for the 30-foot fuel cell powered bus for so many years. You have provided $11 million towards $26 million in this program over those years.

The 30-foot bus is at Georgetown right now. It has been tested a variety of ways in California. They are making two more. The third bus should be about 2,000 pounds lighter than the one at the university now, and it will be the same weight as a diesel 30-foot fuel cell bus but with a fuel cell power plant. That is pretty exciting for us.

The stage now, the final thing is to test these things on a real route that we are going to parallel them with the buses that they run at Georgetown, and then figure out what the maintenance is and all those details. We think there is going to be less maintenance on these because there are less moving parts in the fuel cell.

[The statement of Rev. George follows:]

Georgetown University

Office of the President
Assistant for Federal Relations

Subcommittee on Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives
Public Testimony for FY'96
March 24, 1995, 10:45 am
RHOB, Room B-308

Mr. Chairman and Members of the Committee:

I am Father William L. George, S.J., Special Assistant to the President of Georgetown University, the Reverend Leo J. O'Donovan, S.J. I appreciate this opportunity to testify before the Subcommittee on the 30-Foot Fuel Cell Powered Bus Program. I am pleased to report that the promise of fuel cell technology to meet the transit industry's need for environmentally clean, fuel efficient power is now being demonstrated on the world's first liquid-fueled 30-foot fuel cell powered bus. Your vision of fuel cells for transportation is now becoming reality. The continuing support of this Committee for the three prototype test bed buses has brought the program through the development test phase and to the point of in-service type evaluations. The first bus has been put through an extensive engineering test program and is now at Georgetown where it will run the same routes as our standard buses to provide comparative operational performance data. The second and third buses are nearing completion and both will be under a rigorous test program by the summer.

We request that $800K of the Department of Energy fuel cell testing funding be directed towards the testing of two of the fuel cell test bed buses in the nation's capitol to document their performance against the standard diesel buses operated by the university. This would establish necessary technical benchmarks and climax a very successful development program.

Last year began the education process for the Government, transit operators, and the general public on this nationally important technology. The first bus has been successfully demonstrated at key technical symposia and public displays including three days at DOT's Technology Fair at the mall here in Washington last fall. This bus operates cleanly, quietly and efficently. Georgetown has also produced and distributed three high-quality videos to advance awareness of the development and promise of fuel cell technology. The message is getting through and the national interest is being raised as we had hoped.

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Although public understanding and acceptance are important results, the 30-Foot Fuel Cell Bus Prototype is serving an even more critical function; providing the technical direction and assurance to proceed with the commercialization of the technology. The efforts initiated here fostered the follow-on program by the Federal Transit Administration to develop a commercially viable 40-foot fuel cell bus using a domestic fuel cell manufacturer. The goal is to bring the fuel cell technology to a state of commercial production with the promise that the technology will serve as the pathfinder to the automotive market. The work to date provides confidence that the ambitious goals of the fuel cell bus program will be achieved and fuel cell technology will find its way into the automobile marketplace yielding great economic and environmental benefits to the nation.

Mr. REGULA. You think this will be more cost effective than, say, a natural gas powered bus?

Rev. GEORGE. It will be cleaner. These things can run on natural gas depending on how you set up your fuel cell. The ones we have do methanol, run on methanol.

Mr. REGULA. As an alternate?

Rev. GEORGE. Yes, but there is a reformer on board if it is too incorrect. Jim Larkins is our program manager. If you had a reformer to take natural gas, methanol, ethanol, it would work but methanol seems to be the easiest thing because you just pour it in the tank at the moment.

Mr. REGULA. So you are still in the experimental stage?

Rev. GEORGE. I don't think it is that much experimental any more.

Mr. REGULA. Are you ready to go commercial?

Rev. GEORGE. We have been working with FTA, because remember that program was shared by FTA and DOE. And they do the bus stuff. DOE did the energy stuff. They are working on expanding it to a 40-foot bus, what kind of fuel cell will be in that, whether it is a PAFC or——

Mr. REGULA. You are saying the fuel cell for the 40-foot is now commercial?

Rev. GEORGE. No. No. But what this thing has done is prove that it is commercialable in a 40-footer. Nobody is going to buy a 40-foot bus right now.

Mr. REGULA. How long do you think it would take to commercialize?

Rev. GEORGE. Forty-foot transit bus, regular city bus, three years. That is what the experts tell me and we believe we can do it.

Mr. REGULA. 1996, 1997, 1998?

Rev. GEORGE. Yes. Truly believe it, but we would like to give you a ride in this bus. This is the first of a kind and it really works better than you could ever anticipate. We could take the whole committee, staff, if you guys want to take a ride. We have got it there so any time you want, and I think it might be scheduled to be in the Cherry Blossom schedule, so if you want to take a ride in it, we would be happy to get you in it.

Mr. REGULA. I don't think I will be here. I will be going to Ohio.

Rev. GEORGE. It works. But what I would like to ask the committee, the budgets are tight. We know there is a line for the testing of fuel cell vehicles at the DOE. We think they need a little more.

Mr. REGULA. Does DOE support this?

Rev. GEORGE. Yes. We have been working with them for the last 12 years.

Mr. REGULA. Do you get any private funding?

Rev. GEORGE. Yes. Of the—there has been about five-and-a-half million dollars of non-Federal funds in this.

Mr. REGULA. And how much Federal?

Rev. GEORGE. About 22 over the years.

Mr. REGULA. Do you think in the future we can get a 50/50 match?

Rev. GEORGE. I truly don't. You have to ask the manufacturers that. They put monies in and if it gets to in-kind, they probably already do a lot. I don't know how to count that way.

Mr. REGULA. You understand we are trying to stretch dollars.

Rev. GEORGE. I do.

Mr. REGULA. And I always like the matching funds because that means people are serious about what they are doing.

Rev. GEORGE. They are serious and they are putting people and time on this. It is still—if you looked at it from an energy perspective, I think they would consider it risky, but they will—the hard thinkers, the hard engineers say we can have this thing on the road and that captures the market, and I think it is marketable other places than the United States because other countries don't have the availability of gasoline that we have.

Mr. REGULA. All the cities around the world are going to have a big problem.

Rev. GEORGE. These buses are quiet and clean. It is a real value.

Mr. REGULA. So you have a 30-footer that is operating?

Rev. GEORGE. Yes, sir.

Mr. REGULA. If we get some time, we will take a look at it.

Rev. GEORGE. Any time. And I appreciate you picking the loaves and the fishes, because you realize some theologians connect that with the Sermon on the Mount, and that was Jesus' political kickoff speech.

Mr. REGULA. We are still safe on separation of church and State. Thank you very much.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

WILLIAM BARRETT, EXECUTIVE DIRECTOR, ASSOCIATION OF INDEPENDENT COLLEGES OF ART AND DESIGN

Mr. REGULA. The Business Council for a Sustainable Energy Future.

All right. The National Association of Home Builders Research Center.

Association of Independent Colleges of Art and Design, Mr. Barrett. Doesn't mean you get their 10 minutes, though.

I would rather be ahead than behind. Go ahead. You have five minutes.

Mr. BARRETT. Thank you very much, Mr. Chairman.

I appreciate the opportunity to be here and discuss the NEA. The Association of Independent Colleges of Art and Design recommends an appropriation of $172.4 million.

I wanted to begin just by saying a couple words about AICAD, this organization. We represent the freestanding accredited degree grant colleges of art and design in this country. That is 32 members. We enroll 50,000 students from all 50 States, employ 8,000 artists.

Mr. REGULA. Are these four-year degrees or two?

Mr. BARRETT. Four and some masters as well; 8,000 faculty staff.

Mr. REGULA. Your students go out and teach or do they go into museums, art museums?

Mr. BARRETT. About half of them graduate in design fields and go out and get jobs such as architecture, graphic design, things like that. The other are design artists. A lot of them teach. Others go out and curate or do arts administration.

While most of our members have received grants from the NEA over the years, certainly all of our members believe in the importance of the NEA to our Nation's legacy, and we would like to make a few points.

First, I think it is most important for us, the visual arts, performing arts, architecture and design help define our existence. The use of imagery, language, making of tools and objects, the transmission of ideas and feelings are key to what make us human beings and the history of our civilization is largely preserved in our works of art and architecture.

Furthermore, art and design plays a central role in our lives and other ways. They are as much a part of our infrastructure, our social and intellectual fabric as running a business or building a bridge. Art and design creates employment. It contributes to U.S. leadership in industries such as fashion, transportation, publishing, and manufacturing.

Second, given this vital role in our world, support of art and design to us seems to be a valid and beneficial function of government. The NEA has provided 30 years of tangible leadership in preserving and disseminating art and design in this country, the best art and design in this country at a cost of about 65 cents per student per year.

Mr. REGULA. Your students go into industrial design?

Mr. BARRETT. Yes, they do. They go in and design all the cars that we drive.

And again, the NEA has a whole design program that is oriented towards architecture and design work and industrial design.

Mr. REGULA. Does NEA give the grant to the school or to the students?

Mr. BARRETT. It goes directly to the institutions. They would apply for specific programs, yes, exhibitions and other types of outreach programs and so on. We think the NEA represents one of the best investments our government can make.

Third, we think that criticisms of the NEA in the past have been overstated. Some people said it has made mistakes recently, and perhaps there have been some controversial grants, but these have also been overwhelmingly outweighed by 10,000 grants in 30 years that have been of unquestionable value and impact. We probably hope for the same kind of success rate in some other government activities.

Some people want the NEA defunded or eliminated. We think that would reverse 30 years of progress in bringing the arts to the people of the United States.

The reality is the NEA enjoys broad public support. Polls show, depending on which one you read, between 60 and 80 percent of the population support public funding of the arts and believe that the NEA is worthwhile. Some people are criticizing the validity of the NEA, but the public clearly thinks it is valid and does good work.

Finally, when Congress makes its budget decisions and makes its cuts, which we certainly think they need to do, the NEA doesn't expect any kind of special budgetary protection, and we wouldn't argue for that. We think, on the other hand, it doesn't deserve to be treated any more harshly than any other agency, especially in light of its history, in light of its broad public support. If the cuts have to be made in the NEA, we think they should be in line percentage-wise with other cuts being made. I think to cut radically would really cheat future generations.

We are already seeing the effects here of a decade-long elimination of many art education programs in public schools. Were it not for the good work of the NEA, we think we would risk further decline in our cultural life. So on a cost-benefit basis, it is extremely small cost, it is substantial benefit for the country, and we think that it should continue to be funded.

[The information follows:]

WILLIAM O. BARRETT, EXECUTIVE DIRECTOR
ASSOCIATION OF INDEPENDENT COLLEGES OF ART & DESIGN

TESTIMONY ON MARCH 24, 1995
HOUSE INTERIOR APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

Mr. Chairman and members of the Committee, I thank you for the opportunity to discuss the future funding of the National Endowment for the Arts. The Association of Independent Colleges of Art and Design (AICAD) recommends an FY96 appropriation of $172.4 million.

Let me begin by introducing AICAD. We represent the free-standing, degree-granting, accredited colleges of art and design in this country. Our 32 members enroll 50,000 students from all 50 states, employ 8,000 artists and designers, and have combined operating budgets of $450 million. While most of our members have received grants from the NEA, all our members believe in the importance of the NEA to our nation's legacy. We would like to emphasize the following points about art and design and the NEA.

First, the visual arts, performing arts, architecture and design help define our very existence. The use of imagery and language, the making of tools and objects, and the transmission of ideas and feelings are keys to what make us human beings. The history of our civilization is largely preserved in our works of art and architecture. Years from now we will be remembered as much by our art and design as by our military and political achievements.

Furthermore, art and design play central roles in our lives. They are as much a part of our intellectual and social fabric as running a business or building a bridge. Art and design create employment and contribute to U.S. leadership in industries such as fashion, transportation, publishing and manufacturing.

Second, given this vital role in our world, support of art and design is a valid and beneficial function of government. The NEA has provided 30 years of solid, tangible leadership in preserving and disseminating the best art and design in our country. At a cost of 64 cents per citizen per year, and with financial leverage of eleven to one, the NEA represents one of the best investments our government can make.

Third, we think that criticisms of the NEA are overstated. Some people say the NEA has made mistakes recently. However, while there may have been a handful of controversial grants, these are overwhelmingly outweighed by 10,000 grants of unquestionable value and impact over 30 years. We would hope for that success rate in other government activities.

Some people want the NEA defunded or eliminated. To do so would reverse 30 years of progress in bringing the arts to the people of the United States. The reality is that the NEA enjoys broad public support in this country. Polls show that between 60 and 80% of the population supports the public funding of art and believes the NEA is worthwhile. A vocal group may question the validity of the NEA, but clearly the bulk of the country does not.

Fourth, when Congress makes budget decisions they should be balanced and fair. The NEA cannot expect special budgetary protection compared to other agencies, but neither does it deserve to be treated any more harshly, especially in light of its broad public support. If cuts must be made in the NEA's budget, they should be in line with the percentage cuts in other areas of the government.

We believe that future generations will be short-changed if we radically cut support for art and design. We are already seeing the affects of the decade-long elimination of many art education programs in our public schools. Were it not for the good work of the NEA, we would risk a further decline in our country's cultural quality of life.

For these reasons we urge continued funding of the NEA in FY96.

Thank you very much,

William O. Barrett
Executive Director
Association of Independent Colleges of Art & Design
3957 22nd Street
San Francisco, CA 94114

Mr. REGULA. Let me make a suggestion, that is that you get your members across the country or interested parties to contact the authorizers. NEA is not authorized.

Mr. BARRETT. Yes, I understand.

Mr. REGULA. And under the rules, we can't really appropriate without an authorization. I know they are going to have a hearing.

Mr. BARRETT. Coming up shortly, yes.

Mr. REGULA. But you should contact as much as possible the individual members of that committee. Because I think that is an important step one. Thank you very much.

Mr. BARRETT. We plan to do so. Thank you.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE HUMANITIES: ARCHAEOLOGY PROGRAMS

WITNESS

DONNA J. SEIFERT, PRESIDENT, THE SOCIETY FOR HISTORICAL ARCHAEOLOGY

Mr. REGULA. Society for Historical Archeology, Donna Seifert.

Ms. SEIFERT. Seifert.

Mr. REGULA. Seifert. And I might say the same thing is true of NEH in terms of authorization. I am sure you are aware of that.

Ms. SEIFERT. Yes.

Mr. Chairman, six of the largest and most prominent organizations representing archeology in America join to express unconditional support for National Endowment for Humanities. In this era of downsizing and deficit reduction, it is important not to lose sight of what makes our country great. It is also important that we look beyond basic necessities of life and strive to enhance those aspects of the human experience that make life worth living.

Archeology is popular with the American public. Articles in magazines such as Archeology and National Geographic on archeology attract a wide audience. And you, Mr. Chairman, I am sure, know about the broad public participation in the Nobel's Pond site excavations. Plymouth Plantation, Old Sturbridge Village and Colonial Williamsburg rely on archeology as a basis for public interpretation.

While the National Endowment for the Humanities supports innovative and important archeological research, it also encourages public application of scholarship. And many of NEH's projects carry public benefits ranging from daily programming at archeological sites to teacher in-service and outreach programs.

The National Endowment for the Humanities is also committed to supporting programs such as the archeological conservancy, whose primary purpose is stewardship and protection of nonrenewable cultural resources.

Now, we know that the fundamental issue here is money. And in Congress' efforts to promote privatization, NEH is a perfect model of the successful public-private partnership. The NEH challenge grant program has generated more than $1 billion in private matching funds.

I would like to take the opportunity here to tell you a little bit about three projects that were funded last year by NEH. Archeologist Larry McKee's NEH grant for a project at The Hermitage, Andrew Jackson's home, will process scholarly and popular publications, museum displays and science to provide a richer and livelier tour for the site's 250,000 visitors. Six thousand Tennessee schoolchildren participate in The Heritage's hands-on history program, in which the archeology class is the most popular offering.

The 8 percent of the total project budget provided by NEH helps Dr. McKee and his staff, as he puts it, get the information off the shelf, out of the storage cases, and into the hands of the true audience, the American people.

Constance Arsigian of the Mississippi Valley Archeology Center at the University of Wisconsin, LaCrosse, received a NEH grant to synthesize data on Native Americans in the upper Mississippi Valley. And this project will produce also scholarly reports and a popular publication. And other benefits to the center and the people of western Wisconsin from this grant and related grants through the Wisconsin humanities council include a lecture series, a video entitled "Battle of the Bad Ax," which was shown on both commercial and public television, and archeology programs. And Ms. Arsigian stresses that these grants are to produce public programs to broaden the cultural and civic horizons of area citizens.

Our organization depends on NEH grants to fulfill its education and historic preservation mission. Last year, NEH also funded archeological research at the Franciscan Church complex at San Luis and Tallahassee, Florida, under the direction of Dr. Bonnie McKuen. The goal of this research, an interpretive program at the 17th century site, is to educate the public about Florida's missions. San Luis is a model program for research, preservation and education. And results are immediately incorporated into the daily tours, the outreach and in-service teaching programs, children's camps, living history programming, and special annual events such as the heritage festival and archeology day at San Luis.

There is no other organization in the United States comparable to the National Endowment for the Humanities. NEH funds only projects that meet the highest standards of scholarly rigor, and NEH projects have produced a spectacular body of research and public programming.

Consequently, NEH has played a significant role in advancing our awareness of who we are as a nation. We are here to testify that NEH is meeting its mission admirably, and we have come to expect the very best from NEH sponsored projects.

Mr. REGULA. You have about 30 seconds.

Ms. SEIFERT. Then I will close.

Mr. Chairman, we urge you to move with whatever force you can muster to maintain NEH's current level of funding. NEH represents the pride and importance we place in American culture and the legacy we hope to leave future generations. Your predecessors in Congress had the vision to recognize the value of the National Endowment for the Humanities when they established it 30 years ago, and it continues to serve America well.

[The information follows:]

Donna J. Seifert, President
Society for Historical

presents this testimony before

The House Appropriations Subcommittee on Interior and Related Agencies
Fiscal 1996 Appropriations
National Endowment for the Humanities
24 March 1995

on behalf of

Society for Historical Archaeology, Donna J. Seifert, President
Society for American Archaeology, Bruce D. Smith, President
Archaeological Institute of America, Stephen Dyson, President
The Archaeological Conservancy, Mark Michel, President
American Anthropological Association, James Peacock, President
Southeastern Archaeological Conference, Patricia Galloway, President

Prepared by Bonnie G. McEwan
Chair, Governmental Affairs Committee
Society for Historical Archaeology

Mr. Chairman, six of the largest and most prominent organizations representing archaeology and anthropology in America have joined together in their unconditional support of the National Endowment for the Humanities. In this era of down-sizing and deficit reduction, it is important not to lose sight of what it is that makes our country great. Critical to our democracy is an appreciation of our cultural heritage and equal access to information. It is also important that we look beyond those short-sighted goals that make life possible and strive to enhance those aspects of the human experience that make life worth living.

Those who view archaeology as an elite discipline are apparently unaware of the broad-based appeal and participation that archaeology generates. Articles in popular magazines such as *Archaeology*, published by the Archaeological Institute of America, and *National Geographic* attract a wide audience. Outdoor museums including Plimoth Plantation, Old Sturbridge Village, and Colonial Williamsburg rely on archaeology as a fundamental basis of their public interpretation. The combined visitation of these three museums alone exceeds twenty million people each year. While the National Endowment for the Humanities supports important and innovative archaeological research, it also actively encourages public application of that scholarship. Many of NEH's projects carry enormous public benefits ranging from daily programming at archeological sites open to the public year round to teacher in-service and outreach programs. The National Endowment for the Humanities is also committed to supporting programs, such as the Archaeological Conservancy, whose primary purpose is stewardship and the protection of non-renewable cultural resources for future generations.

Furthermore, NEH funds are widely dispersed by humanities councils in every state throughout the country. State humanities councils identify and support the needs of local communities through speakers' bureaus, travelling exhibits, teacher workshops, and a multitude of other public programs. Since many of their services are free, state humanities councils provide one of the few sources of humanities programming available at the local level regardless of an ability to pay. As such, the National Endowment for the Humanities is anything but an organization that caters to the elite; rather it is a centrally based network deeply involved in grassroots projects that impact the constituents of every member of Congress.

The fundamental issue at hand is money; therefore, it is important for Congress to understand that the relatively small amount of funding traditionally appropriated to NEH annually ($177 million) is handled scrupulously. In Congress's effort to move toward privatization, NEH serves as a perfect model of a successful public-private partnership. Over the 18-year history of NEH's Challenge Grant Program, the program has generated more than *one billion dollars* in private matching funds. In other words, an NEH grant should not be viewed as an outright gift, but rather as seed money that provides the leverage and incentive to generate matching funds from private sources.

We would like to take this opportunity to highlight three archaeology projects in progress that were funded by NEH last year. Archaeologist Larry McKee's NEH grant is for continuing work at the Hermitage, including analysis and interpretation of the artifacts from twenty years of archaeological research at Andrew Jackson's home plantation. Dr. McKee explained that "the project will result in a number of different "products," from scholarly and popular publications to museum displays to signs and scripting which will allow a much richer and livelier tour for the more than 250,000 people who visit the site each year. Perhaps the biggest beneficiaries of the project will be the 6000 Tennessee school children who participate in the Hermitage's "Hands on History" programming, in which the archaeology class is by far the most popular offering. . . . The importance of that eight percent (NEH portion of total budget) is that it is allowing us to get the information off the shelf and out of the dusty storage cases and into the hands of its true audience, the American people."

Constance Arzigian of the Mississippi Valley Archaeology Center at the University of Wisconsin-La Crosse received an NEH grant to synthesize a large body of data on Native Americans in the Upper Mississippi Valley in the late prehistoric period and at the time of European contact. During the course of the grant period, the project staff will produce a scholarly publication as well as a popular version. Benefits to the center and people of western Wisconsin from this grant and related grants through the Wisconsin Humanities Council include an archaeology lecture series, the video "Battle of the Bad Axe" that was shown on commercial stations and on Wisconsin Public Television, archaeology education programs, and a number of popular publications describing the pre-European cultures of the region. Ms. Arzigian stresses the importance of these grants in disseminating information gained through archaeology to the public: "These grants are to produce public programs to broaden the cultural and civic horizons of area citizens. . . . Our organization depends on NEH grants to help fulfill its education and historic preservation mission."

Last year NEH also funded archaeological research in the Franciscan church complex at San Luis de Talimali in Tallahassee, Florida, under the direction of Bonnie McEwan. Owned by the state and open year round, the goal of the ongoing research and interpretive program at this seventeenth-century site is to educate the public about Florida's long-forgotten missions, most of which pre-date those in the Southwest and California. San Luis is a model program for research, preservation, and education for Floridians and visitors to the Sunshine State. Dr. McEwan notes that research results are immediately incorporated into the daily tours, outreach and in-service teaching services, children's camps, special annual events such as the Heritage Festival and Archaeology Day at San Luis, and living history programming. Tens of thousands of children, students, teachers, and the general public directly benefit everyday from this NEH-supported program.

We commend NEH for supporting these important projects that would not be possible otherwise. We also look forward to the results of additional archaeology projects just funded by NEH including "The Ethnoarchaeology of Little River Ottawa Indian Village" (Charles Cleland of Michigan State University); "Analysis and Publication of the Hell Gap Site Investigation" (George C. Frison of the University of Wyoming); and "Jamestown Archaeological Project" (William M. Kelso of the Association for the Preservation of Virginia Antiquities). All of these projects promise to contribute substantially to our understanding of Native American and early colonial cultural heritage. Each one also has specific public benefits that allow citizens to see tangible results of their tax dollars.

There is no other organization in the United States comparable to the National Endowment for the Humanities. Its commitment to fund only projects that meet the highest standards of scholarly rigor to elucidate aspects of American culture and history, as well as that of other countries, has resulted in a truly spectacular body of research and public programming. Consequently, NEH has played a significant role in advancing our awareness of who we are as a nation. As articulated in their own mission statement, "NEH grants support conservation and access to the nation's cultural resources; research and educational opportunities for humanities professors, independent scholars, and elementary and secondary school teachers; the writing and publishing of scholarly texts; translations of important works in the humanities; and museum exhibitions, television and radio programs, and other public programs that offer examination of ideas and themes in the humanities." We are here to testify that this organization is meeting its stated mission admirably, and we have come to expect the very best from NEH-sponsored projects.

Mr. Chairman, we urge you to move with whatever force you can muster to maintain NEH at its current level of funding. The National Endowment for the Humanities represents far more than money can ever buy. It symbolizes the pride and importance we place in American culture and the legacy we hope to leave to future generations. Your predecessors in Congress had the vision to recognize the value of the National Endowment for the Humanities when they established it thirty years ago, and it continues to serve America well.

Thank you for your consideration of our comments.

Mr. REGULA. Thank you, and let me urge you to see the authorizing committee.

Ms. SEIFERT. We will do that.

Mr. REGULA. You fully understand the situation.

Ms. SEIFERT. Yes.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: ELECTRIC VEHICLES

WITNESS

KATERI CALLAHAN, EXECUTIVE DIRECTOR, ELECTRIC TRANSPORTATION COALITION

Mr. REGULA. Thank you very much. Is the AARP representative here?

Electrical Transportation Coalition. Good morning.

Ms. CALLAHAN. Good morning, Mr. Regula.

I would like to thank you for the opportunity to testify before your subcommittee today. I represent the Electric Transportation Coalition. We are here today——

Mr. REGULA. Is this electric cars?

Ms. CALLAHAN. Yes, it sure is.

Mr. REGULA. Light rail?

Ms. CALLAHAN. Right, light rail and battery-powered buses, anything that runs on electricity would be of interest to our organization. I am here today to talk to you about passenger cars and light duty trucks, the programs that are under way at the Department of Energy.

And specifically I am here to urge the subcommittee to fully fund the administration's request on three programs that we think have great significance to getting electric vehicles commercializationed into the U.S. Those are first and foremost the United States advanced battery consortium.

Secondly, there is a test and evaluation program that is known as the site operator users task force.

And finally, the alternative fuels utilization program, which is the funding that is provided to allow the Federal Government to transition its own fleet to use of alternative fuels like electric vehicles.

[The information follows:]

Written Testimony
of Kateri A. Callahan
Executive Director
Electric Transportation Coalition

Subcommittee on Interior
House Appropriations Committee

March 24, 1995

This testimony addresses electric vehicle-related programs of the Department of Energy. Funding requested in the Administration's budget for electric vehicle and related programs in FY 1996 totals $89.65 million. Additionally, this testimony discusses the use of funding through the Alternative Fuels Utilization Program for acquisition of electric vehicles for federal government fleets.

This testimony is presented on behalf of the Electric Transportation Coalition (Coalition), a nonprofit organization of electric utilities, automobile manufacturers, state and local governments, and other entities that have joined together to advocate the greater use of electricity as a transportation fuel. (A membership listing follows.)

DOE's electric vehicle programs provide valuable support for the introduction of this new transportation technology, in furtherance of the national objective of increasing the use of alternative fuels in the transportation sector. The role of the federal government has been, first, to provide research and development support to address technological issues, through programs including the U.S. Advanced Battery Consortium and the hybrid propulsion systems program; and second, to assist industry in testing and evaluation of the latest electric vehicle technologies through the Site Operator Users Task Force.

A third major emphasis of the federal government should be to acquire electric vehicles for federal fleets. Such acquisitions would be fully consistent with existing statutory requirements, and Presidential directives, to convert the federal fleet to alternative fuels.

Funding for the United States Advanced Battery Consortium

The Coalition supports the Administration's request for funding in FY 1996 ($31.58 million) for battery research and development, including the U.S. Advanced Battery Consortium (USABC). The need for significant advances in battery technologies is frequently cited as the most pressing and challenging technological need associated with electric vehicles. With federal cost sharing through the USABC, private industry can cumulatively assume more R&D risk. Private participants are providing 50% of the funding for the USABC effort.

The USABC has developed performance criteria for mid-term and long-term battery performance, and set goals of commercializing a mid-term technology (with the potential to double the range and performance of EVs compared to battery technologies available today) and demonstrating the feasibility of a long-term battery technology (which would make EV range and performance comparable to that of today's gasoline-powered vehicles).

The USABC has awarded six major research contracts, three focusing on potential mid-term technologies (nickel-metal hydride and sodium sulfur) and three addressing long-term technologies (lithium-polymer and lithium-iron disulfide).

Battery development is a scale-up process, moving from development of cells to modules and then full-size battery packs. All USABC research contracts are resulting in cells, modules or full size batteries undergoing testing in the U.S. national laboratories. For long-term technologies, work is still at the cell or module level. Progress is being made, but significant work remains to be done.

Once advanced technologies are identified, they must be proved out at production scale. The R&D support offered through the USABC is already having this impact in the marketplace, as illustrated by the formation of the GM Ovonic joint venture to produce the Ovonic nickel-metal hydride battery, one of the mid-term technologies receiving support from the USABC. Other ways that the federal government can assist, directly and indirectly, in this area also must be explored. One important means is through creation of an outlet for advanced battery products through the exercise of the federal government's purchasing power, as discussed below.

Funding for the Hybrid Propulsion Systems Development Program

The Coalition also supports the Administration's request for funding for the DOE Hybrid Propulsion Systems program ($55.57 million). The hybrid program provides another important mechanism for industry and government to work together to develop a consumer attractive, ultra-low emission vehicle with high fuel economy. This 50% cost-shared program integrates improved propulsion systems with a variety of energy control and storage technologies, with the objective of producing "production feasible" prototype hybrid systems. Two major contracts have been awarded to teams of developers featuring large and small businesses for the development and demonstration of hybrid EVs.

Funding for the Site Operator Users Task Force Program

The Coalition supports funding for the Site Operator Users Task Force (SOUTF) program ($2.5 million in FY 1996). The SOUTF is a joint effort by government, utilities and educational institutions to test and evaluate near term electric vehicles and their associated infrastructure in realistic operating environments. Vehicles acquired through the SOUTF program provide valuable information to manufacturers and users. The program also assists in demonstrating the market opportunities for EVs, and in supporting the development of the infrastructure necessary for the widespread operation of electric vehicles. Like the other DOE EV initiatives, the SOUTF program features 50% cost sharing by non-federal participants.

In 1994, the SOUTF program played a key role in conjunction with EV America, the nationwide, electric utility-led initiative to accelerate the introduction of electric vehicles into the marketplace through placement of a large number of EVs into utility, commercial, government and transit fleets by the end of 1997. By the end of this calendar year, the EV America program will lay the groundwork for placement of up to 500 EVs in service.

Funding through the SOUTF program has supported a rigorous performance evaluation process to establish a baseline for today's EV technology and to validate performance claims made by EV manufacturers participating in the program. Based on successful test results, utilities participating in EV America agreed to purchase vehicles, which will undergo field test evaluations. Another round of performance evaluations will be conducted with DOE's assistance during the summer of 1995. It is expected that one or more major U.S. automotive manufacturers will provide products for testing this summer.

DOE Electric and Hybrid Program Supports PNGV Goals

Efforts by the DOE and industry through the USABC, the Hybrid Propulsion Systems Development Program and the SOUTF can contribute important technological advances not only for pure electric vehicles but also for the advanced vehicle technologies that are the goal of the Partnership for a New Generation of Vehicles (PNGV). Development of EVs and hybrid EVs is both an end in itself and a means to develop and refine advanced technologies necessary for the PNGV to succeed.

The work that has been done by industry in the development of battery-powered electric vehicles has resulted in, and will continue to produce, a host of enabling technologies critical to the work underway in the PNGV, including regenerative brakes, motors, controllers, and batteries. EVs can serve as test beds for these technologies, and commercialization of EVs will contribute to the ability of component suppliers to achieve volume production of technologies required for the next generation of vehicles. Experience with EV operation will spur consumer confidence and also will help to bring about the infrastructure systems necessary to support the "super car" of the future.

Federal Alternative Fuel Utilization Program Funding

The Energy Policy Act (EPAct) lays the groundwork for a fundamental change in transportation technology(ies) used in this country. By requiring various fleet operators -- including the federal government -- to acquire alternatively fueled vehicles, EPAct seeks to create a market for alternative fuel vehicles. The role of the federal government is to support private industry by sharing the risks of early technology introduction through acquisition of alternatively fueled vehicles for federal fleets. Federal procurement of electric vehicles is particularly important, given the relatively greater risks to early technology adopters resulting from the use of this radically different new technology.

The Coalition acknowledges that budgetary constraints may influence the pace of federal activities in this area. Prudent investments, however, should be maintained. One important opportunity for the federal government to meet its responsibilities under the Energy Policy Act in a way that both complements and supports the interest and commitment of the private sector is through an "EV Market Launch Framework" program developed and supported by the U.S. electric utility and automotive industries.

Building on the initiatives established under EV America, the EV Market Launch Framework envisions placement of electric vehicles, including vehicles incorporating advanced batteries that can meet the mid-term performance goals of the USABC, on the road in fleet operations around the country. The EV Market Launch Framework is based on a commitment from the U.S. electric utility industry and the domestic automobile manufacturers to manufacture, purchase and demonstrate (together with government) up to 5000 road-worthy electric vehicles by the end of 1997. Both the auto and utility industries agree that this effort is essential to the creation of a self-sustaining market for electric vehicles.

The federal government's role would be to purchase, under the EPAct authorities, several thousand EVs before the end of 1997. Federal EV purchases would be coordinated with several thousand EV purchases to be made by U.S. electric utilities and other large fleets. Utilities would also commit to provide supporting charging infrastructure -- both for the federal fleet and private sector vehicles. Auto manufacturers would agree to offer road worthy EVs for sale. These EVs would be sited in selected urban jurisdictions around the nation, to centralize infrastructure requirements and demonstrate operations and emissions benefits.

Conclusion

The benefits of EVs justify a limited, but crucial, federal government role to assure that EVs become market ready in this decade. Electric vehicles will enable the nation to meet critical needs -- for fuel diversity in the transportation sector and increased reliance on domestic transportation fuels; for development and advancement of new technologies to maintain U.S. science and technology leadership in key areas that were previously supported through defense and aerospace programs; for keeping the U.S. in a position of technological superiority in the worldwide evolution in personal transportation; for economic opportunities and jobs creation; and for more environmentally acceptable personal transportation options.

The EV will be an outlet for technologies being developed in cooperative government/industry programs (for example, the leading edge efforts of the USABC), and also will be a catalyst and outlet for other advanced technologies, in areas such as lightweight and composite materials and motors and controllers. In light of the support being provided for EV and related technologies by foreign governments, the U.S. government must remain involved in efforts to support U.S. technology development. The return on the federal government's investment in these important programs will be measured in terms of jobs created, oil displaced, and improvements in air quality.

ELECTRIC TRANSPORTATION COALITION

MEMBERSHIP

March 9, 1995

Allegheny Power Service Corporation
American Electric Power Service Corporation
American Public Power Association
Arizona Public Service Company
Baltimore Gas & Electric Company
BMW of North America, Inc.
Boston Edison Company
California Trade and Commerce Agency
Centerior Energy Corporation
Chattanooga Area Regional Transportation Authority
Chrysler Corporation
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City of New York
City of Riverside Public Utilities Department
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Southern California Edison
State of Colorado
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The Southern Company
Theodore Barry & Associates
Toyota Motor Corporation
Unique Mobility, Inc.
University of California, Davis
University of South Florida
University of Washington, College of Engineering
Villanova University
Virginia Power
West Virginia University
York Technical College

Mr. REGULA. Did I understand that California is requiring a percentage of cars sold to be electric?

Ms. CALLAHAN. Well, what the State of Cal—yes, you are correct. It is not that they are requiring electrics, though. The State of California in 1998 will require that 2 percent of the vehicles that are produced by the major automobile manufacturers be provided as zero emission vehicles. That means no emissions in operation.

The only technology that we know of today that can meet that test would be a battery powered electric vehicle. So it is actually an emission standard.

Mr. REGULA. Two percent marketed in California? When you say produced, they can't tell Detroit what to do can they?

Ms. CALLAHAN. They are telling Detroit what to do, along with the Japanese auto manufacturers.

Mr. REGULA. If you want to sell a Chevrolet in California, General Motors has to produce 2 percent of their total vehicle production in electric vehicles?

Ms. CALLAHAN. No; 2 percent within the State. But it is critical, because that is about a quarter of the market for some of the major auto manufacturers, like General Motors and Ford.

Mr. REGULA. So 2 percent of what is sold in the State by any manufacturer has to be zero emission?

Ms. CALLAHAN. A ZEV, they call it, zero emission vehicle. That is about somewhere between 20,000 and 35,000 vehicles that will be going into California. What is important is the Clean Air Act has allowed other States to opt into that California program that has in part the zero emission.

Mr. REGULA. Tell me, what do you do if people won't buy them?

Ms. CALLAHAN. That is the issue that we are here today, we want to make sure that there is a product available that people will buy. The mandate is for the automobile manufacturers to offer for sale the vehicles. There is no mandate for anyone to purchase the vehicles.

Mr. REGULA. So they produce them and they just have to offer them?

Ms. CALLAHAN. They just have to offer them for sale, yes, sir.

Mr. REGULA. Put them in the showroom, if they don't sell, they are stuck?

Ms. CALLAHAN. They are stuck, but the hope is that between now and 1998, we are going to be able to get a product to market that is attractive enough that you are going to get people to purchase.

Mr. REGULA. So what you are saying, you need some Federal help to get that job done.

Ms. CALLAHAN. We do, we need it in three areas. We need some help—we need to improve the range, to attract a wider audience. We want to be able to get you to Ohio, to your home, on a battery-powered vehicle one day. The USABC is doing good work there. And I want to point out that there is already a return on the Federal investment.

First of all, that is a cost-share program and it is being done with the utility industry and the domestic OEMs. And the result is a nickel-metal hydride battery that is being developed through—that is going to go to commercial production through a joint venture with General Motors and Ovonic. So that is critical. Other two areas are market and infrastructure development. There are two programs that are helping——

Mr. REGULA. Places to plug in.

Ms. CALLAHAN. Right. The electric utility industry is leading the initiative to demonstrate significant numbers——

Mr. REGULA. Can you charge with 110 or do you need 220?

Ms. CALLAHAN. Either. But they are working so that you can charge at even greater voltages so you can charge faster to improve the range.

Mr. REGULA. I drove the GM car. Pretty snappy.

Ms. CALLAHAN. It is a wonderful car. That is in demonstration around the United States. It is time to scale up. They have only got 30 of those being demonstrated in 12 areas around the United States. We think it is time to scale up to several thousand. We want the——

Mr. REGULA. You need to scale up the miles. It is 350 miles to Ohio.

Ms. CALLAHAN. Well, the nickel metal hydride battery is going to get you halfway there and the impact is about 150 to 200-mile range.

Mr. REGULA. How long does it take for a quick charge then halfway?

Ms. CALLAHAN. It depends on the technology that is used. Some quick charges demonstrated 15 minutes in terms of charging. That is technology that is out there being demonstrated. We need to prove it out. It is not commercially available, but we are hoping that it will be soon.

Mr. REGULA. Okay. Thank you very much.

Ms. CALLAHAN. Thank you.

Mr. REGULA. I was surprised, the performance was better than I anticipated.

Ms. CALLAHAN. Popular Science called it not only the best electric vehicle that has ever been produced, but the best car.

Mr. REGULA. It has got a lot of juice.

Ms. CALLAHAN. Yes, it does. Thank you for your time.

Mr. REGULA. Okay. Thank you.

FRIDAY, MARCH 24, 1995.

DOE: WEATHERIZATION ASSISTANCE PROGRAM

WITNESS

LUCRETIA PASCHALL, AMERICAN ASSOCIATION OF RETIRED PERSONS

Mr. REGULA. AARP, I understand you are ready. You have five minutes and we will welcome your testimony. You are supporting the weatherization program.

Ms. PASCHALL. Thank you, Mr. Chairman.

Good morning. I am Lucretia Paschall, a member of the National Legislative Council of the American Association of Retired Persons, AARP. Thank you for this opportunity to testify regarding appropriations next year for the weatherization assistance program.

This initiative has helped weatherize the homes of more than 4.4 million families since the program first began 19 years ago. Every year, those weatherized buildings use 2 trillion fewer Btu's, saving their low-income residents millions of dollars.

Weatherization assistance is making a real difference in the quality of life for many older Americans who are more likely to live in older, poorly insulated homes. Roughly one-third of all dwellings weatherized under the weatherization assistance program are occupied by older persons.

Energy costs can be a burden for low-income families, often forcing difficult choices among basic necessities. This is especially dangerous for elderly households, given their vulnerability to weather-related illnesses such as hypothermia and heat stroke.

Under the administration's budget proposal, funding for weatherization assistance would rise next year from $226.8 million, which the program currently receives, to $229 million. AARP supports this proposal, and I realize that our recommendation for such an increase comes at a time when Congress is considering a funding decrease in the program for this year. But AARP stands behind the administration's fiscal year 1996 request. As advocates for the program, we can do no less.

This level of funding will weatherize an additional 116.5 thousand homes next year. Older persons occupy the highest percentage of substandard housing among homeowners. The situation is particularly severe among the minority elderly. Nearly half of the homes occupied by low-income elderly Americans of African descent lack central heating. A survey conducted in 1990 by the Department of Energy indicates that low-income households spend approximately 12 percent of their income on home energy, almost four times the percentage paid by the typical American household.

The Department updated this survey in 1993. However, expenditure data is not yet available. Information from the Department of Labor shows that on average energy expenditures as a percentage of income are 70 percent higher for households headed by a retiree than for wage earners.

The energy savings made possible by the weatherization assistance program are impressive. A recent study of the program reports that such expenditures have been reduced by 18 percent and 36 percent respectively in households using gas or electricity. Field personnel are now much more experienced in determining which conservation techniques are most cost efficient and energy efficient. These advantages should produce real energy savings in the years ahead.

A particularly promising area for improvement in energy efficiency is in manufactured housing. These homes, more commonly referred to as mobile homes, are a major source of housing for low-income and elderly households. Although improved energy efficiency standards are now in place for new manufactured homes, the large stock of existing manufactured homes are not energy efficient.

Homes manufactured before 1976, representing 50 percent of the existing stock, typically use twice as much energy as regular homes. Currently, about one out of five homes weatherized are manufactured homes. Recent reports indicate that new weatherization techniques for housing manufactured before 1976 can reduce energy bills by 30 to 50 percent. These techniques are now available to weatherization agencies across the Nation.

The combination of improved weatherization techniques and tougher standards promises major improvements in energy efficiency for manufactured housing and substantial benefits for low-income residents.

Thank you again for this opportunity to comment on funding for this critical program.

[The information follows:]

AARP

Bringing lifetimes of experience and leadership to serve all generations.

STATEMENT

OF THE

AMERICAN ASSOCIATION OF RETIRED PERSONS

ON

APPROPRIATIONS FOR THE WEATHERIZATION ASSISTANCE PROGRAM

FOR FISCAL YEAR 1996

PREPARED FOR THE

SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

OF THE

COMMITTEE ON APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

MARCH 24, 1995

American Association of Retired Persons 601 E Street, N.W., Washington, D.C. 20049 (202) 434-2277
Eugene I. Lehrmann *President* Horace B. Deets *Executive Director*

Mr. Chairman, I am Lucretia Paschall, member of AARP's National Legislative Council. AARP appreciates this opportunity to testify regarding appropriations for the Weatherization Assistance Program. It would be unrealistic to comment on the President's recommended increase **next year** for this energy conservation program without first acknowledging the possibility of a spending cut **this year.** As passed by the House, the rescission bill includes a $14.8 million reduction below the program's current $226.8 million appropriation. AARP appreciates that even with this proposed cut, the program's revised FY 1995 appropriation would still be higher than its prior year level. Nevertheless, any reduction that may be mandated this year by Congress means less weatherization efforts for low income households.

The Association supports the $229 million proposed by the President for FY 1996, an increase of $2.2 million over the current enacted level. The Department of Energy reports that, to date, its weatherization programs in cooperation with Federal and State partners have increased the energy efficiency of over 4.4 million homes. Every year these weatherized buildings use 2.0 trillion BTU's, saving their low-income residents millions of dollars. The budget request will provide for the weatherization of an additional 116,500 homes next year.

Energy costs are a burden for all low income families, often forcing difficult choices among basic necessities. This is especially true in elderly households, given their vulnerability to weather-related illnesses such as hypothermia and heat stroke.

Data from the Department of Energy's 1990 Residential Energy Consumption Survey indicate that low income households spend approximately 12 percent of their income on home energy, almost four times the percentage paid by the typical American household. The Department updated this survey in 1993, however, expenditure data is not yet available. The latest Consumer Expenditure Survey (1992) by the Department of Labor shows that on average, energy expenditures as a percentage of income are 70% higher for households headed by a retiree than for wage earners.

The latest Department of Energy Housing Characteristics Survey (1990) indicates that 35 percent of the homes occupied by older households were built prior to 1950 compared to only 26 percent of those occupied by younger families. These homes are typically less well insulated, more expensive to heat and in need of repair. Research by AARP's Public Policy Institute using data from the 1989 American Housing Survey shows that older households, especially minority households, occupy the highest percentage of substandard housing among homeowners. For example, among owner-occupied units, homes of older African-American households were almost four times more likely to exhibit severe or moderate quality defects. Our study also showed that 61.7 percent of low income older owners were unable to devote any funds to routine maintenance or improvements such as weatherization.

Weatherization Assistance has made a crucial difference for many of these older households. Just under one-third of the dwellings weatherized under the program are occupied by older persons. A study by the Oak Ridge National Laboratory released last September 1994 indicates that weatherization efforts through the Weatherization Assistance Program have reduced home energy heating expenditures by 18.2 percent for average households receiving the service. For households using gas or electricity, expenditures have been reduced 18.3 percent and 35.9 percent respectively. When combined with Low Income Home Energy Assistance benefits, the home energy cost burden is reduced further.

Emphasis in the Weatherization Assistance Program with respect to methods used has evolved from emergency and temporary measures (such as caulking and weather-stripping) to inclusion of those conservation remedies that on average produce the highest savings (e.g., combined attic and sidewall insulation). Personnel in the field are now much more experienced in determining which conservation techniques, under what circumstances, are most cost effective and save the most energy. These advantages, built up so painstakingly over the last few years, should show real energy saving dividends if program funds are increased next year.

A particularly promising area for improvement in energy efficiency is in manufactured housing. Manufactured homes, more commonly referred to as mobile homes, are a major source of housing for low-income and elderly households. Although the Department of Housing and Urban Development adopted improved energy efficiency standards for new manufactured homes in 1994, the large stock of existing manufactured homes are not energy efficient. Homes manufactured before 1976, representing 50 percent of the existing stock, typically use twice as much energy as site-built homes.

Currently, approximately 20 percent of all weatherization work focuses on manufactured housing. Recent reports by the National Center for Appropriate Technology (NCAT) indicate that new weatherization techniques for pre-1976 manufactured housing can reduce energy bills by 30 to 50 percent These techniques are now being made available by NCAT to weatherization agencies across the nation. The combination of improved weatherization techniques and tougher energy efficiency standards for new manufactured homes promises major improvements in energy efficiency for this form of housing and substantial benefits for low income residents.

DOE's supporting analysis for the 1990 National Energy Strategy indicated that long-term residential energy consumption could be reduced by 23 percent through a gradual introduction of the best available conservation technology. The analysis also noted that to make a major contribution in the short-term, conservation measures must focus on retrofitting existing buildings. In addition, the National Energy Policy Act of 1992 gives great emphasis to improving building efficiency. With a capability to weatherize approximately 250,000 dwellings a year, continuation of the WAP is essential to meeting national energy goals.

Thank you for this opportunity to comment on funding next year for this critical program.

Mr. REGULA. Thank you.

Do you think we ought to expend these funds in the warmer States as well as the colder States?

Ms. PASCHALL. Because I think the elderly will need cooling systems. You recall a few years ago in Dallas, Texas, some of the elderly poor, when there was a high—a long period of time, several days, when the temperatures were extremely high, and there were some elderly who lost their lives because they couldn't get enough cool air. So yes, I do.

Mr. REGULA. Okay. Thank you very much.

Ms. PASCHALL. Thank you, sir.

FRIDAY, MARCH 24, 1995.

DOE: CLEAN COAL TECHNOLOGY

WITNESS

BEN YAMAGATA, EXECUTIVE DIRECTOR, CLEAN COAL TECHNOLOGY COALITION

Mr. REGULA. Our next witness is the Clean Coal Technology Coalition, Ben Yamagata.

Glad to see you, Ben.

Mr. YAMAGATA. Mr. Chairman, how are you? I don't need five minutes and I was just trying to scratch down the two or three points that I thought I would like to lay into the record, Mr. Chairman.

I feel like you should be on this side of the table, because you make the case for clean coal technology much better than I ever could. I would like to say, for benefit of the record, that as a coalition, understanding the necessity in this budget climate for rescinding the $200 million, I would hope that that is where it stops, at least until the projects that are currently under way with the Department of Energy have a chance to run their course and the Department and the project sponsors can mutually agree whether or not those projects ought to go forward or ought to stop.

And it is in that vein that I would like to make several points to you, again by way of reminding the committee really why you initiated this program several years. As you will recall, even the General Accounting Office, which tends to be the nemesis of most government programs, has clearly stated that this is one program that shows a successful relationship between the Federal sector and the private sector in cooperative venturing.

I would also remind you, if I may, that 56 percent of the electricity produced in this country comes from coal. And all credible projections tend to show that that amount isn't going to dip below 50 percent for the next couple of decades. We have got more than 200 years of coal available at current consumption patterns.

Finally, it is important to know that while we have a flat demand right now for electric capacity and it is likely to stay that way for the next several decades, the next couple of decades, even DOE and others are projecting that by 2010 we are going to need at least 40,000 megawatts of capacity. If you look at current conventional coal-based technology today, we have about 10,000 megawatts of capacity that we could meet there with conventional technology. That is because of the SO_2 emission caps that were imposed by the Clean Air Act amendments.

If you bring these technologies to fruition, DOE is saying that under those emission caps you can probably do about 100,000 megawatts worth of new coal-fired capacity. We are not going to get that done unless we can finish the job on producing the technologies themselves.

The other point that you make very well, Mr. Chairman, is that between now and 2010, the export potential for clean coal is absolutely enormous, $42 billion per year. A billion dollars, you may recall, is worth 20,000 American jobs annually. And we are not going to get that job done, either, unless we move with the technologies.

I thank you very much for your time. I know you are our champion and anything we can do to help in your efforts here, we would be very glad to do.

[The information follows:]

WRITTEN STATEMENT OF BEN YAMAGATA
EXECUTIVE DIRECTOR OF THE CLEAN COAL TECHNOLOGY COALITION
SUBMITTED BEFORE THE SUBCOMMITTEE ON INTERIOR APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
MARCH 24, 1995

I. INTRODUCTION

This testimony concerns fiscal year 1996 funding for the Department of Energy's (DOE) Clean Coal Technology Program. This written statement is submitted on behalf of the Clean Coal Technology Coalition (CCTC or Coalition), a public/private organization of electric utilities, coal companies, technology developers, state governments, universities and others organized to encourage the development and deployment of clean coal technologies. (A membership list is attached.)

The Coalition recognizes the difficult choices and decisions before Congress resulting from efforts to reduce federal spending. As the Subcommittee determines appropriate funding levels during the FY 96 appropriations process, the Coalition encourages Members of the Subcommittee to consider costs and benefits of the various programs and provide funding for those that are proving to be successful, or show promise for success. Such a process will allow the nation to reap the multiple benefits derived from prudent spending and effective policy implementation. In the alternative, funding cuts to quality programs adopted in the name of budget reductions may save dollars in the near term, but will limit, or eliminate, more substantial long-term gains.

The Clean Coal Technology Program (CCT Program), a jointly funded partnership between government and industry to demonstrate a new generation of innovative coal processes in a series of showcase projects, has been, and continues to be, an extremely successful undertaking. It is an exemplary program that has demonstrated that government and industry may form effective partnerships and make sustained progress toward long-term goals.

As the Subcommittee considers FY 96 appropriations, as well as prior year funding, the Coalition encourages Members to provide adequate funding to complete the 45 selected projects. To date, the CCT Program is the subject of significant funding cuts and additional reductions would fundamentally affect the integrity of the program. However, in light of current budget constraints facing the Nation, the Coalition supports the position that if funds remain in the Clean Coal Technology Program account after completion of the previously-selected projects, those funds should be returned to the U.S. Treasury to assist in deficit reduction.

II. THE CLEAN COAL TECHNOLOGY PROGRAM -- A SUCCESSFUL COOPERATIVE UNDERTAKING

The Department of Energy's Clean Coal Technology Program was established in 1986 as an industry/government partnership for sharing the costs of projects that demonstrate innovative technologies for using coal in a more environmentally sound, efficient and economical manner. This program was born out of recommendations by the U.S./Canadian Special Envoy on Acid Rain and approved, and finally recommended, by former Canadian Prime Minister Brian Mulroney and President Ronald Reagan. The establishment of the CCT Program responded to the need to marry the Nation's energy demands with our most abundant energy resource, coal, and to do so in an environmentally responsible manner that does not jeopardize the attainment of air quality standards. Clean coal technologies meet this dual need.

Much of the Program's success is based upon its unique structure. First, unlike many other federal programs, the CCT Program was designed to serve a specific mission: to demonstrate a variety of clean coal technologies. Once the selected projects are completed, the program will end. Second, industry is assigned a critical role in the project selection process. Rather than select technologies, the government assists in the development of technologies chosen as most promising by industry. Third, the program contains a repayment provision. Not only do U.S. taxpayers gain the environmental, energy efficiency, national security and job creation benefits associated with the development of clean coal technologies, but when the technologies are successfully marketed, project participants are required to repay the government for federal financial support received.

The CCT Program has been implemented by the Department of Energy through five solicitations and currently consists of 45 showcase demonstrations that are either completed, or underway in 21 states. Success of this public/private partnership may be measured by several factors. First, six projects have been completed and 24 (more than half) will be completed by the end of FY 96 (it is important to note the timeliness of project completion given the tremendous scale of these multi-million dollar projects); second, for every $1 invested by the federal government, private companies and states have contributed $2, making the program one of the most successful leveraged technology-development ventures managed by the U.S. Government; and third, within the last year, commercial sales of clean coal technologies have exceeded half a billion dollars, creating and supporting more than 3,400 jobs. And finally, DOE projects that data and know-how from these DOE-supported clean coal projects are being used in more than $9 billion worth of clean coal projects at home and abroad.

The Clean Coal Technology Program proves that government and industry can form successful and productive partnerships. In fact, in a 1994 GAO report, the CCT Program was cited as a model for public/private partnerships, "the Clean Coal Technology Program has shown that the government and the private sector can work together effectively in demonstrating new technologies."

III. THE IMPORTANCE OF COMPLETION OF THE CCT PROGRAM

The federal government plays a critical role in the CCT Program by providing "seed" funding and support for these new technologies. Government support of clean coal technologies has mitigated the high risks and costs associated with technology development and the lack of economies of scale that attends the initial demonstration of a technology. In turn, this support has increased the rate of development and deployment of clean coal technologies. Government participation, has been, and continues to be, vital to the successful and timely introduction of clean coal technologies into the marketplace.

At the inception of the Program, Congressional appropriators had the foresight to advance appropriate funds for the clean coal program. This innovative funding process assured the private sector that the government was a committed and reliable partner and provided the security required by industry to invest large sums of capital into this Program. To slash funding at this point would forfeit a relationship that the federal government and industry have worked hard to nurture and develop, break government's commitment to partner with industry in the 45 clean coal technology demonstration projects and destroy an important bond of trust. Without adequate funding to complete the program, industry will no longer be able to view the government as a reliable partner, and legal suits may be filed and damages sought.

It is vitally important that sufficient funding be provided to the CCT Program not only for the purpose of honoring government commitments, but also to provide the U.S. market with advanced technologies for future power generation needs. Adequate funding will allow the program to continue, projects to be completed, technologies to mature, and enable U.S. companies to access the potentially expansive clean coal technologies export market.

IV. CLEAN COAL TECHNOLOGIES YIELD MULTIPLE NATIONAL BENEFITS

Forecasts generally conclude that even with aggressive energy efficiency measures, economic expansion will create the need for new U.S. based power plant construction of as much as 100,000 megawatts by 2010. Coal is expected to provide a substantial portion of that new capacity. Currently, coal is used to generate 53 percent of U.S. electricity. Coal will continue to be the primary source of electric power well into the next century, not only in this country, but for much of the world. Given these facts and projections, the United States is presented with an extraordinary opportunity to market its new, cleaner, coal-based power systems overseas which will create new U.S. jobs and help reduce the U.S. trade deficit.

Clean coal technologies allow the Nation not only to meet current and future power generation needs while utilizing our most abundant energy resource -- coal -- but also to provide that power in an environmentally sound manner. This is an important point to recognize. Without new technology, it will be difficult for generating companies to respond to increased electricity demand, comply with environmental regulations and at the same time refrain from increasing the cost of electricity production and electricity prices to consumers. Given that $200 billion from our economy goes for the purchase of electricity yearly, any economic penalty can erode U.S. competitiveness and limit economic growth.

The clean coal technologies under development have proven successful in removing and preventing emissions. The various clean coal technologies can remove 30 to 90 percent of nitrogen oxides and 50 to 99 percent of sulfur dioxides from the combustion of coal. Also, because some of these technologies are more efficient in converting coal to useful energy, significantly less CO_2 is emitted.

In addition to significant environmental benefits, CCTs already have benefitted the U.S. economy through revenue from sales and jobs creation. Upon completion of successful demonstration, clean coal technologies have begun to move into the marketplace. More than one-half billion dollars in sales of clean coal technologies have occurred and CCT projects have contributed to the creation of almost 3,400 domestic jobs. Also, these technologies, if successfully marketed, will be required to repay the government's contribution to the demonstration project. Funds have already been returned, or repaid, to the federal government in this Program.

There also exists a significant potential to export clean coal technologies which in turn will create additional U.S. jobs. Global electricity demand, particularly in developing countries is rapidly increasing. To meet that demand, many nations will need to rely upon indigenous coal resources and foreign capital to finance utility projects. The National Coal Council estimates that coal capacity worldwide will nearly double over the next 30 years; 60 percent of that growth in capacity and electricity use is expected to occur in developing countries, the former Soviet Union, and in Eastern Europe. China alone is expected to add almost 15,000 megawatts of capacity annually for the next decade, and much of that power is expected to be generated from coal. The potential CCT market for new facilities and retrofit installations internationally for 1993-2010 is projected to be between $571 billion and $870 billion. In the base case, this would represent an average potential, in constant 1993 dollars, of $42 billion annually. In terms of U.S. jobs, the Commerce Department estimates that each $1 billion in U.S. exports sustains about 20,000 American jobs.

V. CONCLUSION

The Clean Coal Technology Coalition understands the budgetary constraints faced by the federal government and respects Congressional action to consider plans to reduce federal spending. However, we ask that effective programs, which promote and achieve multiple national goals and benefits, are not sacrificed in the process. The Clean Coal Technology Program is a successful program that has supported the national goals of economic growth, job creation, pollution reduction, energy efficiency, and domestic fuel security.

The Coalition requests Subcommittee consideration of these benefits against the marginal savings that might accrue from cutting an already reduced program budget. While some savings might be found this fiscal year, in the long-term, U.S. taxpayers would lose jobs, exports, cleaner technologies, domestic fuel security and the government would lose credibility as a reliable partner with industry.

In light of current budget constraints, we support return of any remaining funds to the U.S. Treasury for deficit reduction, and we do not support an expansion of the program. However, we strongly support the completion of the current CCT Program and the 45 selected projects, and we urge Congress to fulfill its commitment to this important and successful program.

CLEAN COAL TECHNOLOGY COALITION
1995 Membership

1995 Steering Committee Members:

- American Electric Power
- Babcock & Wilcox
- Edison Electric Institute
- General Electric
- Sargent & Lundy
- Shell Synthetic Fuels
- Southern Company

1995 Clean Coal Technology Coalition Members:

- Allegheny Power System
- Air Products and Chemical, Inc.
- Asea Brown Boveri, Inc.
- Ashland Coal, Inc.
- Baltimore Gas & Electric
- Bechtel Corporation
- Bringham Young University
- Cleveland State University
- Commonwealth of Kentucky
- Cyprus Amax Coal Company
- Destec Energy
- Dravo Lime Company
- Ebara Environmental Corporation
- Foster Wheeler USA
- General Public Utilities
- Marietta Coal Company
- Montana State University
- Morrison Knudsen Corporation
- National Coal Association
- National Lime Association
- New England Power Service Company
- NOXSO Corporation
- Peabody Holding Company
- Sierra Pacific Power
- Southern Illinois University
- Southern Indiana Gas & Electric
- State of Colorado
- State of Illinois
- State of Indiana
- State of Ohio
- State of West Virginia
- Texas Land Commissioner
- University of Missouri-Columbia
- University of Montana
- University of Tennessee
- University of Wyoming
- West Virginia University

March 22, 1995

Mr. REGULA. Thank you.

Mr. YAMAGATA. Did that take three minutes?

Mr. REGULA. Yes, you are doing all right.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY EFFICIENCY

WITNESS

JOHN HEMPHILL, EXECUTIVE DIRECTOR, THE BUSINESS COUNCIL FOR A SUSTAINABLE ENERGY FUTURE

Mr. REGULA. Our two late arrivals have now arrived, the Business Council for a Sustainable Energy Future, Mr. Hemphill.

Mr. HEMPHILL. Thank you very much, and I apologize for being late.

Mr. REGULA. We will make you a little shorter than five minutes.

Mr. HEMPHILL. I will try to be brief and to the point. I have brought with me prepared testimony.

Mr. REGULA. This will be made a part of the record.

Mr. HEMPHILL. Thank you very much.

I am John Hemphill, Executive Director of The Business Council for Sustainable Energy Future, and I am here today to speak to you about the business council's view on the role of the Federal Government with respect to research and development as it pertains to the Department of Energy.

Broadly speaking, we believe the Federal Government's role with respect to research and development, or as a general policy matter, for that matter, should be to provide societal benefits. Specifically, we should encourage economic growth, environmental quality, and national security. And we believe that the program elements of the Department of Energy, especially in the efficiency area, by and large accomplishes those goals.

Like the business council, the programs of the Department of Energy's efficiency programs are very diverse, and it reflects the diversity of energy consumption in our society. And I won't attempt to cover all of the programs. Instead, I will focus on four specific programs that we think illustrate the benefits of the activities of the Department of Energy.

To begin with, there is a storage battery program, and we think that is an example of a promising technology that is in the development stage. DOE, in cooperation with the Advanced Battery Consortium, has conducted research that has resulted in significant improvements in battery technology. And in fact one of the members of the business council energy conversion devices has produced a technology that has met most of the interim or near-term or midterm objectives of this consortium in terms of performance and the like.

We are very encouraged by that, but clearly more needs to be done before we are going to see electric vehicles as commonplace modes of transportation. So we believe the work needs to continue in this area. This progress has been encouraging, but more definitely needs to be done.

Another area that we think has been very successful is the DOE's gas cooling program. Very modest dollars, again with cost shared being a prominent feature of this program. And in particular, we think it is an example of—the work they are doing in desiccant cooling is illustrative of the kind of support and proper support that a Department of Energy can provide for these kinds of technologies. This is a case where it is a—not a new technology, but it is becoming a very—it is becoming a prominent technology and a very efficient way of cooling by reducing the humidty. You actually have a very efficient system.

The problem is that the current modes of measuring performance for cooling don't really accommodate the desiccant approach. And in this area, the Department of Energy is putting forward standards and performance criteria so that a person can have a way of judging this kind of technology versus another kind of cooling technology. And we think that is a very appropriate role for the government to provide.

There are also, we think, the cooperative programs, voluntary programs of the Department of Energy and the utility industry is good. I am running out of time? And we think those should be encouraged. Specifically climate-wise is a good program, with many benefits.

And finally, the FEMP program is just a great opportunity for the Federal Government to invest dollars, to save energy, and save money, especially if they would pursue more vigorously the energy performance contracting that reduces capital costs, which is a big problem in government.

[The information follows:]

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PUBLIC WITNESS TESTIMONY:

THE DEPARTMENT OF ENERGY'S FY 1996 ENERGY EFFICIENCY BUDGET

PRESENTED TO:

HOUSE APPROPRIATIONS COMMITTEE,
INTERIOR SUBCOMMITTEE

BY:

JOHN HEMPHILL
EXECUTIVE DIRECTOR

MARCH 24, 1995

BUSINESS COUNCIL FOR A SUSTAINABLE ENERGY FUTURE

House Appropriations, Interior Subcommittee
FY 1996 Energy Efficiency Budget

March 24, 1995

INTRODUCTION

I am John Hemphill, Executive Director of the Business Council for a Sustainable Energy Future. I am here today to offer the Business Council's views on the role of government in support of energy research and development -- as it relates to energy efficiency programs at the Department of Energy (DOE).

The Business Council for a Sustainable Energy Future is comprised of a diverse group of companies. Our members represent manufacturers, energy producers, suppliers, and energy service companies. Our diversity is also reflected in the size of our member companies. We have Fortune 500 enterprises and small entrepreneurial businesses as members. The Business Council supports energy related policies and programs that enhance the Nation's economic and national security goals through the rapid deployment of efficient, non- and low-polluting energy technologies.

AGE OF DISCOVERY AND ENLIGHTENMENT

Energy efficiency is an often misunderstood concept. Perhaps because the term came into wide national usage during the 1973 oil embargo, when long lines at the gasoline station and personal sacrifice were commonplace. Doing without often was equated with energy conservation, and energy conservation was viewed as part of the solution for dealing with the energy crisis.

After the panic of the embargo subsided, we made a series of discoveries concerning the real nature of energy efficiency. First, we discovered that using energy efficiently does not require sacrifice. Rather, it simply requires change.

Second, we discovered that energy often is used inefficiently. That is, many cost-effective investments that save energy are overlooked or ignored. This market failure can be traced to a number of market imperfections, such as lack of information, buyer/user disconnect, and hidded or inaccurate price signals, that are unique to the use of energy.

Third, we discovered that replacing old technologies with new energy-efficient technologies has societal benefits: it creates jobs, improves US competitiveness, enhances the Nation's economic security, and reduces pollution resulting from energy production and use.

These discoveries lead virtually every administration from President Nixon to President Clinton to feature prominently programs that promote energy efficiency as a key component in their National Energy Strategy.

PROGRAM REVIEW

The federal government's energy efficiency programs are as diverse as the activities that consume energy.

The Business Council will not attempt to address all of DOE's energy efficiency programs given their breadth and diversity. Rather, we would like to focus on a few programs that we believe illustrate the value of the federal government's energy efficiency effort.

DOE's efficiency research effort varies with the technology -- its relative maturity, the degree of risk associated with its development, and its potential for market success.

BATTERY TECHNOLOGY

The battery provides an example of a promising technology for electric vehicles (EVs). DOE has conducted research, in cooperation with the Advanced Battery Consortium, that has lead to significant improvements in battery performance. The Ovonic Nickel-Metal Hydride battery -- produced by Business Council member Energy Conversion Devices -- has met or exceeded many mid-term performance goals set by the Consortium, affirming the future market viability of EV technologies. Although the technology is ready for market introduction, further advancements in battery technology are required before the electric vehicle becomes commonplace. The electric battery and other promising energy storage technologies could redefine transportation, ending the transportation sector's virtual total reliance on liquid fossil fuels and eliminating health threats posed by vehicle tailpipe emissions.

ALTERNATIVE FUEL VEHICLES

DOE also is working with the private sector on technologies that offer near-term economic and societal benefits. Alternative fuel vehicles (AFVs) -- including natural gas and electric vehicles -- promise to reduce US reliance on imported oil while virtually eliminating emissions of criteria air pollutants. The Energy Policy Act of 1992 requires DOE to assist fleet owners in using AFVs. Natural gas, a cheap and plentiful domestic resource, is well-suited as an alternative vehicle fuel. However, the lack of fueling stations has limited the wide spread use of natural gas vehicles which, in turn, makes refueling stations uneconomical. To overcome this classic market failure, DOE has initiated a "clean cities" program in partnership with local governments, vehicle manufacturers, fuel suppliers, and fleet operators. By working in concert with local governments, manufacturers, and suppliers, and by leveraging its own modest federal fleet purchase program, the federal government can help overcome the infrastructure development barrier that limits the introduction of clean natural gas vehicles.

FUEL CELL TECHNOLOGY

Other technologies are moving, with public sector help, from the basic research phase into the market demonstration phase. The fuel cell, which uses chemical reactions to produce electricity and heat is such a technology that offers remarkable efficiency and low emissions. DOE, in partnership with industry, is in the process of demonstrating the technological viability of the fuel cell. Its long-term outlook will depend on further refinements aimed at reducing production costs.

GAS COOLING TECHNOLOGY

DOE's energy efficiency programs also include a modest effort to develop natural gas cooling technologies. Gas cooling systems using desiccant (dehumidification) or absorption technologies offer high efficiency and eliminate the use of ozone-depleting refrigerants. Gas-fired heat pumps are ideal for residential applications while the desiccant system, used alone or as a supplement to traditional air conditioning, can be used in both residential and commercial applications. DOE's program is aimed at validating the performance and improving the cost, efficiency, and quality of these technologies.

UTILITY PROGRAMS

DOE also has worked effectively with utilities and power authorities to promote energy efficiency. Through voluntary programs such as Climate Wise, DOE has obtained the commitment of utilities to reduce their emissions of greenhouse gases. Generally, activities that reduce emissions also reduce energy use. Climate Wise participants -- such as Business Council members, New York Power Authority and Sacramento Municipal Utility District (SMUD), have premised their programs on sound economic principals. In fact, SMUD attributes its aggressive support for energy efficiency as a primary reason it has been able to stabilize its electricity rates.

STANDARDS AND INSULATION

DOE has played a constructive role in the development of building standards that serve as a model for states. Minimum building standards help insure that our Nation's housing stock reflects good building construction practices and is reasonably energy efficient.

In addition, DOE is currently developing industrial insulation guidelines that will significantly improve energy efficiency in this sector of the economy. DOE also has provided valuable technical assistance to the polyurethane foam insulation industry, helping the industry find a substitute for CFCs as a blowing agent used in insulation installation. The CFC-free polyiso insulation performs as efficiently as the prior product without the environmental risk associated with CFCs.

FEDERAL ENERGY MANAGEMENT

Finally, I would like to address an area where government action can have immediate positive impact. The federal government spends over $3.0 billion annually to light, heat, and cool the interior of buildings it owns and operates. These facilities, like those occupied by private industry, often can be economically upgraded and retrofitted to reduce the energy required to provide essential building energy services.

In particular, the federal government has an opportunity to adopt practices used broadly in the private sector, such as energy service contracting, to reduce energy usage while minimizing upfront capital outlays. The federal government has been slow to adopt energy service contracting but we are optimistic that it will soon begin to take advantage of this approach for upgrading their facilities and reducing their energy expenditures.

CONCLUSION

DOE's energy efficiency activities reflect the broad diversity of the technologies and services that characterize the industry. The federal government has a long history of supporting energy efficiency programs based on the many societal benefits offered by these programs. DOE's programs are directed at mitigating market distortions and are consistent with sound market theory. For these reasons the Business Council urges Congress to continue its support for these efforts.

Mr. REGULA. So you are saying in effect you endorse much of what the Energy Department is doing, DOE is doing in experimentation, but you also endorse the matching fund concept?

Mr. HEMPHILL. Very much so. We think that there is a role, appropriate role for the government and DOE to perform in research broadly, not simply so-called basic research, but right on through. I think there is a different set of criteria depending on the circumstances.

Mr. REGULA. Do you feel once it reaches commercialization, that the government should step out?

Mr. HEMPHILL. Absolutely, when we reach commercialization. The problem is that is not necessarily always a fine bright line. But we would agree with that notion.

Mr. REGULA. Thank you very much.

Mr. HEMPHILL. And again I apologize.

Mr. REGULA. That is no problem.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY CONSERVATION

WITNESS

DAVID DACQUISTO, NATIONAL ASSOCIATION OF HOME BUILDERS RESEARCH CENTER

Mr. REGULA. National Association of Home Builders.

Mr. DACQUISTO. Thank you very much, Mr. Chairman. I too apologize for being late.

My name is David Dacquisto. I am vice president of technology at the NAHB Research Center. I have provided a written statement to the staff and request it appear in the record. Thank you.

I just want to use any time to briefly go over some of the work we have been doing with the Department of Energy over the last few years. But first, by way of introduction, NAHB Research Center is the technical arm of the National Association of Home Builders, which in turn has 180,000 plus——

Mr. REGULA. Your research goes out to all the members?

Mr. DACQUISTO. It goes to the members and to private clients as well, yes. NAHB also includes 800-plus State and local home builder associations. About half of the membership is builders, most of whom build less than 10 houses a year. We have got an industry that is incredibly fragmented and has traditionally been viewed as slow to change, difficult to introduce innovations. So that becomes our function.

Over the past few years we have worked with DOE on several initiatives. They fall under two broad headings. The first is the Advanced Housing Technology Program. Second is the Residential Energy Efficiency Program. I will say a few words about each.

Under the Advanced Housing Technology Program, we try to accelerate the adoption of beneficial new technologies into the industry specifically. We go through a process of reviewing emerging technologies. These are really right at the cusp of commercialization, but don't have any significant market penetration. We look for potential energy savings as well as benefits to the construction process, such as reduced cost or reduced labor requirements. We do case studies of these products and we disseminate the results, we publicize the results.

Some of the stuff that we have looked at in case studies includes, for example, insulated lightweight forming systems for concrete walls that use foam plastic insulation instead of traditional form work. This gives you a very energy efficient concrete wall, reduces on site labor, makes the process more flexible.

That was an early one that we looked at. That product is really taking off right now, I can say. There are a host of new products along the line.

Mr. REGULA. Where do you do this work? Do you have a central facility?

Mr. DACQUISTO. We have a research lab located in Upper Marlboro, Maryland, and most of our work is performed out of there, although we do quite a bit of field work as well.

Mr. REGULA. Do you pay for this with the members contributing fees or do you do it by a contract with some group that asks you to do the research?

Mr. DACQUISTO. The advanced housing technology work is cofunded between the Department of Energy and the producers of products that we evaluate.

Mr. REGULA. Is that a 50/50 match?

Mr. DACQUISTO. It tends to be that for individual products, yes, that is true. It varies a little bit from one product to another.

Mr. REGULA. But your mission here is to continue support for that program in DOE?

Mr. DACQUISTO. We believe that money is well spent.

Mr. REGULA. What are your exhibits? You are running out of time.

Mr. DACQUISTO. This is another product that we looked at. It is lightweight concrete basically. It can be nailed, sawed, worked on site.

Mr. REGULA. Does it have better insulating qualities than a normal brick?

Mr. DACQUISTO. Better than conventional concrete, yes, or conventional masonry.

Mr. REGULA. And it will hold up well? Do you mortar this in construction? Does it come in different colors?

Mr. DACQUISTO. Sure, sure.

Mr. REGULA. If you had a house made of this, would it look like a normal brick house?

Mr. DACQUISTO. Well, we have research homes that are being built right now, a townhouse project that incorporates this type of product as well as others. I mean that is an artist's rendering, they are under construction now, but certainly the appearance would be conventional.

Mr. REGULA. That is very interesting.

Mr. DACQUISTO. This is a similar product. You have probably heard a lot about photovoltaics in this committee, I suppose. This perhaps is one of the first where you have actually seen PV integrated into a building product. That is sort of what we are trying to do here.

This is a flexible photovoltaic that can be made to simulate a shingle. Ultimately one could shingle an entire roof with this type of material, tie it into the house's electrical system, and get PV without stand-alone panels or other——

Mr. REGULA. Are these available commercially?

Mr. DACQUISTO. No, this is a prototype product. We are, however, incorporating a similar product in one of these townhouses.

Mr. REGULA. But this is commercial?

Mr. DACQUISTO. This is commercially available, yes. As are most of the others that we look at.

Mr. REGULA. Staff asked a question if this were as strong as concrete.

Mr. DACQUISTO. It is——

Mr. REGULA. Or as a brick, I guess would be a better question?

Mr. DACQUISTO. Well, it is load bearing. In fact, most of your bricks aren't load bearing. So yes, you can make concrete walls. I am not sure it is exactly as strong, but it is sufficiently strong to be used in wall systems.

Mr. REGULA. We are running out of time, but it is very interesting.

Mr. DACQUISTO. Those townhouses, as I said, are under construction. They have over have over 20 sponsers in the private sector in addition to the Department of Energy.

The other major area of our work with the Department is under what we call the Residential Energy Efficiency Program. That is where instead of working with manufacturers, we work directly with builders and local home builder associations. We do technology transfer programs with them.

Mr. REGULA. We are running out of time, but I want to ask one question. Do you help communities that want to set building standards that are key to energy efficiency? Do you give them advice?

Mr. DACQUISTO. We work with voluntary programs, utility programs, to promote energy efficiency. We try and stay out of the codes and standards arena in this particular project.

Mr. REGULA. Thank you very much.

Mr. DACQUISTO. Thank you, Mr. Chairman.

[The information follows:]

STATEMENT
by
DAVID J. DACQUISTO
VICE PRESIDENT OF TECHNOLOGY
NAHB RESEARCH CENTER
SUBSIDIARY
of
THE NATIONAL ASSOCIATION OF HOME BUILDERS
before the
INTERIOR AND RELATED AGENCIES APPROPRIATIONS SUBCOMMITTEE
U.S. HOUSE OF REPRESENTATIVES
on
DEPARTMENT OF ENERGY
FY 96 APPROPRIATIONS

March 24, 1995

Mr. Chairman and Members of the Subcommittee:

I am David J. Dacquisto, Director of Technology of the NAHB Research Center, which is a wholly-owned subsidiary of the National Association of Home Builders. I am speaking here today on behalf of both the Research Center and our parent Association.

I appreciate this opportunity to discuss issues relating to home building and home usage in America that are pertinent to the FY 96 appropriations for the Department of Energy (DOE). The link between home building and the efforts of DOE to conserve energy are very direct, and the potential energy savings that can be achieved in this field are very great.

A Time of Innovation

The present decade has become a time of unprecedented invention and innovation in the building of homes. A large potential for resource conservation and energy savings is being opened up by the creation of new and innovative materials, systems, and techniques. However, at this point, much of this energy-saving potential is just that -- potential, not reality.

Turning the Potential Into Reality

Turning the potential into reality requires action in two areas:

- **First, research must be done on the growing array of new materials and techniques, to identify those that can really contribute to energy conservation.**

- **Second, when useful new technologies are identified, programs are needed to bring them into the home building mainstream. This involves carrying out highly visible demonstrations, educating home builders in formal classes and seminars, and eliminating obstacles such as the absence of uniform procedures and obsolescent regulatory barriers.**

Success is important. In 1990, America's homes consumed 15 percent of all U.S. end-use energy and accounted for 34 percent of U.S. electricity demand. Also, the process of building new homes involves such issues as embedded energy in materials, and the growing urgency of making the best possible use of construction waste.

I would like to describe several programs being carried out by the NAHB Research Center, with DOE funding, to achieve energy conservation in the building and use of homes.

The Residential Energy Efficiency Program (REEP)

In DOE's 1993 budget, Congress provided funding that resulted in the creation and launching of a national Residential Energy Efficiency Program. This program is operated through the National Renewable Energy Laboratory with the support of our parent organization, the National Association of Home Builders. In the program, the Research Center is working to provide a variety of services to assist home builders throughout the nation in the construction and marketing of energy-efficient homes. These services include technology transfer programs, demonstrations, market research, and a builder recognition program.

The **technology transfer programs**, delivered through local Home Builders Associations (HBAs), are a popular way to help builders evaluate and adopt specific energy efficiency methods. Programs that are available to builders through their local HBAs include:

- **Frost-Protected Shallow Foundations** (FPSFs). This type of foundation reduces construction and energy costs by using insulation to prevent freezing damage to foundations. The Research Center's workshop trains builders in the design and use of shallow foundations.

- **Ground Source Heat Pumps.** This technology takes advantage of the steady temperature of the earth -- about 55 degrees F in both winter and summer -- to heat and cool the house. The technology transfer programs in this area include a builder workshop, a certification workshop for installers, an "open house" presentation to homeowners, and a mini-trade show.

- **Gas Engine Heat Pumps.** In this program, builders learn about the installation, operation, and marketing potential of this highly innovative technology.

- **Optimum Value Engineering (OVE).** OVE's "reduced lumber framing methods" offer savings in both energy and construction costs. This program demonstrates OVE methods and breaks down perceived barriers to their use.

- **Introduction to Quality.** This program introduces builders to the concepts and practice of total quality construction, including methods for making energy efficiency part of the value package.

The Advanced Housing Technology Program

The Research Center's Advanced Housing Technology Program is sponsored by Oak Ridge National Laboratory (ORNR) and DOE. In this program, the Research Center analyzes products and systems that are currently on the edge of the marketplace, and that show high promise for improving home building, including energy efficiency.

Products studied in this program that the Research Center has found effective for improving home performance include:

- **Spray-Applied Foam Insulation.** This product shows promise for increasing the efficiency of insulating modular housing, and existing homes and buildings. The product does not utilize ozone-depleting CFCs or HCFCs.

- **Ceiling Radiant Panels.** Research Center tests show that these panels deliver levels of thermal comfort comparable to that provided by forced air and heat pump systems, with significant energy savings.

- **Plastic Composite Material.** This material, made with recycled fly ash, has promising uses that include structural beams and rot-resistant decking.

The 21st Century Townhouses

Building research homes in the NAHB National Research Home Park is a major feature of the Research Center's program for improving home building. Energy conservation is one of the principal issues that is studied in these homes. The Research Center recently built a house in the Research Home Park called the Resource Conservation House, which was built with products that conserve the nation's resources, including energy resources.

We are now carrying out a new project in the Research Home Park, called the 21st Century Townhouses Project. These houses will feature products and systems that reflect two themes -- alternatives to lumber in home construction, and advanced energy efficiency.

Energy-efficient products that are being employed in construction of one or more of the townhouses include:

- **Cast-in-Place Concrete Foundation and Wall System.** This system employs stackable plastic blocks with hollow cores. When the blocks have been stacked up to form the foundation and/or wall, concrete is poured into the hollow cores, forming a highly energy-efficient "sandwich" of concrete, interior insulation, and exterior insulation.

- **Aerated Concrete Units.** These units are lightweight, make use of less material, and can be cut with a handsaw. In addition to using this product to form the foundation and walls of one of the townhouses, the Research Center will test its energy properties in the Advanced Housing Technology Program.

- **Factory-made Panels.** These panels consist of a foam-core center clad on both sides with oriented strandboard, which is made from "junk trees." Energy efficiency is high.

Photovoltaics

Photovoltaics (PV) is the conversion of sunlight into electricity. It is one of the most environmentally safe and desirable forms of renewable energy. With DOE funding, the Research Center is conducting a program to foster the development of building-integrated photovoltaic products and systems, and to help bring them into the marketplace.

Our research includes both fostering of the technology, and conducting a full-scale study of various ways in which PV can be successfully integrated into house design. The finding of successful answers on both fronts is essential to achieving widespread use of the technology.

Energy Value Housing Awards

The Research Center is in the process of creating an Energy Value Housing Award, which will recognize exceptional builders who incorporate energy efficiency into all aspects of their home production. The award will be patterned after the Malcolm Baldridge National Quality Award given by the U.S. Department of Commerce, and the National Housing Quality Awards given jointly by the Research Center and *Professional Builder* magazine. Plans call for high visibility of the award, involving one or more major national magazines, and sponsorship by leading manufacturers of building products.

DOE and Energy Savings in Housing

We strongly encourage Congress and DOE to expand their work in the field of energy conservation with the industry that produces housing. The National Association of Home Builders and the NAHB Research Center wish to work with DOE and Congress to increase the energy efficiency of homes and home building, and to achieve the great energy savings that can be realized through research, technology transfer, and the marketplace acceptance of valuable innovative technologies, in this highly important sector of our economy.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

ROCHE SCHULFER, CHAIR, AMERICAN ARTS ALLIANCE

Mr. REGULA. American Arts Alliance.

I say again to all of you, I wish we had a lot more time, but that is the way it is, so we can keep it moving.

Mr. SCHULFER. Mr. Chairman, my name is Roche Schulfer. I am the executive director of the Goodman Theater in Chicago, Illinois, and the Chair of the American Arts Alliance. I have spent nearly 22 years working in the nonprofit professional theater and I am here because I care deeply about the future of the arts in this country, especially in Chicago, which is my lifelong home.

Mr. REGULA. Do you know Mr. Blair?

Mr. SCHULFER. I am sorry?

Mr. REGULA. Do you know Mr. Bill Blair?

Mr. SCHULFER. Oh, sure, yes, very well. I worked with him in the past.

Mr. REGULA. He is one of my constituents. He has thoroughly talked to me, so you can save your time.

Mr. SCHULFER. I will talk fast. I thought those electric cars were really interesting, so I learned something already today.

We have information on our fields at a glance, containing examples of the activities in which the nonprofit arts are presently involved. On behalf of the alliance's membership of over 2,600 of American professional and non-profit performing, exhibiting and presenting institutions, the alliance is pleased to submit in testimony on fiscal year 1996 funding for the NEA. We are very aware of the reauthorization situation. We are working vigorously with the appropriate members to try to move that forward.

Mr. REGULA. Let me suggest you get your members throughout the country, throughout the Nation, to contact their Members. Nothing is as effective as for a Member to hear from a constituent that supports the Member, hopefully, and at least votes in that election. So I think it is extremely important that you do the grassroots part of this.

Mr. SCHULFER. We are working to do that. And we hope with your indulgence today, despite the reauthorization issue, to present testimony supporting the President's budget for the NEA, the NEH and the Institute for Museum Services.

As the NEA enters its 30th year, it continues the unique national function of increasing access for all citizens for the best that the arts have to offer. No other Government Agency or private organization in America can offer access to excellence on as large a scale as the NEA.

Contrary to much of the current rhetoric, the arts merit national government support because they serve national goals in education, economic development, and improving the quality of life.

Mr. REGULA. Let me say, I know all the words. A couple questions. How do you feel about limiting the grants to nonindividuals? That is, institutional-type grants. Because a lot of the problems that have confronted NEA have been a result of individual grants.

Mr. SCHULFER. The alliance is aware that grants to individuals have caused controversy. We are hopeful that there can be a continued dialogue about this to try to figure out some way perhaps to continue to benefit individual artists through the program, although we recognize it is a controversial area.

The other side of the individuals issue are the number of people, the number of individuals that have been positively affected by NEA grants. I read about a man who was a construction worker who received an NEA grant and that gave him the opportunity to write his first novel.

Mr. REGULA. But I don't have to tell you that your perception problem has been largely as a result of individual grants. And I was just curious about your views.

Mr. SCHULFER. No, we are very——

Mr. REGULA. How do you feel about more help to the States?

Mr. SCHULFER. Well, the opportunity for the States to be a partner in this activity has been there for a long time. It is something that—we are not opposed to working in partnership with the States. We feel that there has to be a strong national presence as well, because there are some things that the NEA can do, for example, regarding access and education that a national profile really is critical and essential.

The access issue is the key, to try to make sure that, you know, whether it is New Mexico or Maine or Florida or Illinois, that there is some opportunity for the arts to be there everywhere.

Mr. REGULA. Well, thank you for your testimony. And get over to that authorizing committee.

Mr. SCHULFER. All right. Thank you, Mr. Chairman.

[The information follows:]

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ADVOCATES FOR THE ARTS

Member Organizations

American
Symphony
Orchestra
League

Association
of Art
Museum
Directors

Association
of Performing
Arts
Presenters

Dance USA

OPERA
America

Theatre
Communications
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**Representing
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Arts Institutions**

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Roche Schulfer, Chair, American Arts Alliance

Testimony of The American Arts Alliance in Cooperation with American Symphony Orchestra League, Association of Art Museum Directors, Association of Performing Arts Presenters, Dance/USA, OPERA America, and Theatre Communications Group in Support of FY 1996 Funding for the National Endowment for the Arts before the Subcommittee on Interior and Related Agencies, Committee on Appropriations, U.S. House of Representatives

March 24, 1995

INTRODUCTION: Mr. Chairman and members of the Committee, I am Roche Schulfer, Executive Director of the Goodman Theatre in Chicago and Chair of the American Arts Alliance. On behalf of the American Arts Alliance's membership of over 2,600 of America's professional nonprofit performing, exhibiting and presenting institutions, the Alliance is pleased to submit testimony to this subcommittee on FY 96 funding for the National Endowment for the Arts (NEA). The American Arts Alliance presents this testimony in cooperation with the American Symphony Orchestra League, the Association of Art Museum Directors, the Association of Performing Arts Presenters, Dance/USA, OPERA America and the Theatre Communications Group. The Alliance supports the President's FY 96 budget request of $172.4 million for the NEA, as well as $182.0 million for the National Endowment for the Humanities and $29.8 million for the Institute of Museum Services, and urges the subcommittee to approve these amounts.

Congress created the National Endowment for the Arts and the National Endowment for the Humanities in 1965 because "democracy demands wisdom and vision in its citizens and it must therefore foster and support a form of education and access to the arts and humanities, designed to make people of all backgrounds and wherever located masters of their technology and not its servant." American audiences and artists across the country have been brought together in unprecedented numbers to experience and learn about the many disciplines of the arts, from theater, to music, from dance to painting.

As the NEA enters its 30th year, it continues the unique national function of increasing access for all citizens to the best the arts have to offer. Some people today ask why it is important to maintain federal support for the arts. The answer is simple. No other government agency or private organization in America can offer access to excellence in the arts on as large a scale as does the NEA. And why is this important? Because the arts benefit Americans and serve national goals in education, economic development, community outreach and improving the quality of life. Let us look past the current rhetoric. Contrary to this rhetoric, the arts merit national government support. The federal government can ill afford not to fund arts programs at a time of fiscal restraint because the arts generate so much economic activity that they help decrease the deficit while helping local economies. And the loss of public funding cannot be replaced by the private sector.

Only with the ongoing national leadership provided by the Endowment will such efforts continue and expand, thereby serving especially rural and inner-city areas and economically disadvantaged Americans. Along with increasing public participation and acclaim, NEA support directly benefits citizens across the country through support for art education, community outreach programs, and bolstering local economies.

THE NEA INCREASES PUBLIC PARTICIPATION AND ACCESS TO THE ARTS: NEA grants help many nonprofit arts institutions offer community outreach and education programs, and bring touring performances and exhibits to underserved areas. At a cost of only 64 cents per year to each American, the National Endowment for the Arts is a valuable investment in developing access to the arts in communities across the nation.

Access

In a country as rich and diverse in natural resources as the United States, our resources are unequally distributed across a diverse geographic area. This is also true of our arts resources. The NEA helps to address this inequality by several means including the establishment of rural-based arts groups and supporting many valuable programs nation-wide which overcome geographical barriers to access by bringing arts and performing groups to sparsely populated areas. Museums bring artwork to rural communities and schools; ballet, opera and theatre companies perform in community centers and gymnasiums; symphonies travel to the smallest of towns; local festivals draw audiences from distant communities. For instance, the Eugene Ballet Company relies on NEA support to stimulate matching funds which allow the ballet to implement programs performed in 50 different rural and urban communities throughout ten western states. The New Mexico Symphony uses a grant from the NEA to help fund its state-wide tour which provides concerts and educational activities throughout the large and primarily rural state. And CITYFOLK of Dayton, Ohio presents a folklife festival celebrating the diverse cultural make-up of the Southwest Ohio community including local performances ranging from jazz and blue-grass to salsa. The national scope of the NEA is critical to providing the support which makes these programs possible.

Arts Education and Community Outreach

Thousands of students in rural and inner-city areas benefit from NEA-sponsored educational outreach programs. For many students, these programs provide the initial exposure to the arts, helping to establish the foundation for a life-long interest and appreciation. Education in the arts has been proven to help students increase cognitive development, improve motivation and discipline, and develop confidence and creativity. *Africa Tells* is a storytelling workshop designed by the Toledo Museum of Art to make the Museum's African art collection more accessible to inner-city communities in Ohio. One father thanked the Museum for selecting his daughter for the project, saying he had observed her self-esteem "soar" during the time she was involved. Countless museums, theatres, symphony's and dance companies across the nation look to the NEA for the leadership and support vital to these outreach programs.

Educational outreach programs provide a forum for discovery and discussion of the diversity of cultures recorded and represented in the arts. Seattle Opera's Education Department shares opera with 36,000 young people and adults through school previews and free dress rehearsals, public seminars and symposia, touring productions, and a diverse outreach program that addresses a wide range of cultures. The *Rainbow Bridge to Opera Program* demonstrates the company's commitment to the culturally diverse population of the Pacific Northwest as well as to groups not traditionally served by opera. Program activities include an opera study program for young people in prison and the *Experience Opera* program at the Orion Center for Homeless Youth. All of these programs are possible due to NEA support.

Grants from the NEA also help sponsor outreach programs that bring art to individuals and groups of every age, income, and cultural background. Huntington Theatre in Boston, Massachusetts makes special arrangements for senior citizens to attend performances. The Anchorage Concert Association distributes donated tickets to local social service agencies so that people who might not normally have a chance to attend a concert are able to see a live performance.

NEA FUNDING BOLSTERS LOCAL ECONOMIES: NEA funding also serves as an economic catalyst in communities, fueling the economy in several ways. For instance, a thriving arts community provides many employment opportunities. The Alliance Theatre in Atlanta, Georgia relies on its seasonal support from the NEA Theatre Program to operate a season of resident and touring performances, employing 433 theatre workers annually. Furthermore, funds received by local arts institutions are in turn channeled into the local economy through purchasing from local businesses equipment, materials and other services. The rippling effect of a thriving arts community includes increased patronage of nearby restaurants and hotels, contributing to the community's tourism industry, and enhancing market appeal of the community based on quality of life issues, thereby attracting new industries and corporate relocation. NEA funds have been estimated to attract $11 or more from public and private sources for every $1 invested. The nonprofit arts sector also is a significant force in the national economy, contributing approximately $37 billion to the economy and 1.3 million jobs, and returning $3.4 billion to the federal Treasury in income tax. These numbers clearly demonstrate the significant economic impact of the arts on local communities.

The success of NEA grants in attracting matching public and private funds is well documented. For example, in FY 92, Endowment grants of $123 million generated matching funds estimated at $1.4 billion, a ten-fold match. These matching funds are directly invested back into the community in the form of continued programming and through the purchase of goods and services from local vendors and suppliers. For instance, according to a survey conducted by the University of Utah, the *Utah Arts Festival* has a significant economic impact in the Salt Lake area. The Festival generates consumer purchasing beyond the festival grounds by generating over $600,000 in lodging, parking, permits, tax revenue, and wages for artists and vendors. Along with stimulating local economic growth, the Festival increases access to the arts. Due to key "seed" dollars from the NEA, the Festival has maintained a ticket price of less than $10 and has been able for the past five years to offer 5,500 free tickets annually to disabled and low-income community members.

The NEA is instrumental in creating an essential partnership between national approval and local support. The imprimatur provided by an NEA grant award is a vital key to attracting additional program support from other government levels and private support, including foundations, corporations, local businesses and community members. For example, over the past three years, *Project Separate Journeys*, an outreach program enacted by Salt Lake City's Repertory Dance Theatre, has reached over 60,000 students and teachers in Utah. The program matched NEA dollars almost twelve times over, allowing the Repertory Dance Theatre to bring a series of free outreach activities to schools across the state. Without the national recognition provided by NEA grant approval, many of these valuable programs would not secure the matching funds required.

CONCLUSION: By investing in our nation's nonprofit arts institutions, the NEA fosters cultural awareness by our citizenry in unique and important ways by: expanding access to the arts; providing a catalyst for private sector funding; boosting local economies; and promoting the understanding of diverse cultures. With the assistance of the NEA, nonprofit arts institutions, our country's national treasures, help to build a vibrant and growing culture that is distinctly American.

We urge the subcommittee to approve $172.4 million for the NEA so that the agency can advance its mission to "foster and support a form of education, and access to the arts and the humanities, designed to make people of all backgrounds and wherever located masters of their technology and not its unthinking servants."

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FIELD AT A GLANCE: ORCHESTRAS

I. Introductory Statement

From large metropolitan areas to towns of only a few thousand, America's 1,600 symphony and chamber orchestras serve a unique function in the cultural life of this country. The quality and accomplishment of America's leading orchestras bring international attention and acclaim. For many children, musical performances at their schools are among their earliest exposures to the performing arts. Through tours and outreach programs, symphony orchestras can reach a large and diverse audience. America's symphony orchestras are committed to the concept that the arts are for everyone.

The National Endowment for the Arts plays an important catalytic role in the funding mix for symphony orchestras. Educational programs, which help to inspire and train new musicians, and assist those seeking to develop a greater understanding of music, are often funded by direct NEA grants, and by the state and local support made possible by NEA funding.

Special programs for the elderly, the hospitalized, and the economically-disadvantaged bring music to those who would otherwise not be able to enjoy orchestra concerts. Many of these programs would be sharply curtailed or cease to exist without the support provided by the NEA.

II. Community Impact Examples

- The **Columbus Symphony Orchestra** (Ohio) uses NEA funds entirely for educational programs. In-school and young people's concerts bring music to students throughout the Columbus area. NEA money also allows the Columbus Symphony Orchestra to send docents to schools to provide music lessons and to help music teachers begin new programs.

- The **New Mexico Symphony** uses its $47,000 in grant money from the NEA to fund its state-wide tour, providing concerts throughout this large and primarily-rural state, and for educational activities.

- A grant from the NEA allows the **Dayton Philharmonic Orchestra** (Ohio) to run an in-school ensemble program. Each year, the orchestra provides 400 performances and lessons to 35,000 children in the 10-county area. These funds also enable the orchestra to offer a "Coffee Casual Series," a series of low-price concerts each season, which make musical performances more accessible to those with limited incomes.

- Youth programs run by the **Pro-Musica Orchestra of Columbus** (Indiana) are a direct result of NEA grants. In-school concerts, a kids chorus, youth music instruction, and a new youth orchestra are just a few of the activities NEA funds have helped support in Columbus.

(OVER)

- Using an NEA grant, the **San Diego Symphony Orchestra** (California) has developed an extensive education program that includes: a community music center in the lowest-income neighborhoods in the city; an after-school music program serving 60 students by providing free music lessons and instruments to students, part of an effort to prevent students from turning to gangs and drug abuse; a week-long Young Musicians Institute, in which 90 students study, rehearse, and perform a concert with musicians from the orchestra; a Meet-the-Musicians lecture series in 30 junior high schools in the area; and a "musical petting zoo" to give pre-school and elementary school students in more than 50 schools time to spend with musicians and learn more about various musical instruments.

III. Economic Profile

Even though orchestras have improved operations efficiency, aggressively marketed their product, and pursued private contributions, certain fixed costs have increased. In FY 1989, it cost $23.80 per audience member for U.S. orchestras to provide 20,630 concerts. By FY 1993, it cost nearly 15 percent more ($29.79) per audience member to provide four percent fewer concerts (19,027).

Earned income is the largest source of orchestra revenue nationally, but the cost of each performance is rising. Over the past five years, the growth of *private donated income* has slowed, and the cost of seeking each donated dollar has increased.

Total public sector support (local, state, and federal) for orchestras has fallen from an average nine percent of total income in FY 1991 to only six percent in FY 1994. In FY 1994, total local, state, and federal support came to nearly $46.5 million for the entire orchestra field. *This support cannot be replaced by earned or other donated income.*

Private support for all U.S. orchestras grew by 18.5 percent from FY 1989 to FY 1993 at an average annual rate of 4.6 percent.

FIELD AT A GLANCE: ART MUSEUMS

I. INTRODUCTORY STATEMENT

Art museums in the country are charged with acquiring, preserving, exhibiting and fostering education about the works of art which form the cultural heritage of the nation. These museums attract a culturally, ethnically and economically diverse audience. Attendance figures demonstrate that audiences are increasing both in number and diversity.

To meet increasing demands of programming for diverse audiences as well as escalating costs of maintaining collections and facilities, art museums depend on NEA grants which are matched by contributions from corporations, foundations, individuals and other private sources. In FY 93 the Association of Art Museum Directors Survey found that the 180 art museums reporting received approximately $8 million in NEA grants, and $320 million from other contributed sources.

This combination of resources permits art museums, not only to maintain their priceless collections of art, but also the infrastructure of buildings, some of which are over one hundred years old and serve the community in a wide variety of ways. NEA grants also provide important resources for community outreach programs, some of which would never have occurred without the NEA's foresight and vision. NEA resources are equally important in creating traveling exhibitions which allow communities to share works from their own collection as well as put together world-class exhibits borrowed from many sources.

II. COMMUNITY IMPACT EXAMPLES

- Art museums have educational outreach programs that touch all aspects of community life in places as varied as schools, hospitals, grange halls, nursing homes, prisons, homeless shelters, housing projects and shopping malls. They afford life-long learning experiences to every segment of the population and offer adult and children's classes which enhance the ability to look at art critically and also help build self esteem. In many communities, art museums are the only place where children can study or participate in any form of art, since school programs have sustained severe budget cuts. Museums serve as the focal point in the community for making art, appreciating it and learning about it.

- Many art museums are located in urban areas that face mounting social problems. However, because of their outstanding range of cultural programming, these museums attract thousands of visitors who encourage revitalization of an area, acting as an important economic stimulus -- shops and restaurants open to accommodate visitors; people on the streets make them safer.

- Equally important to the nation are the art museums which serve the rural community

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offering education and outreach programs that can span areas over 200,000 square miles. Rural populations look upon these museums as keepers of the cultural legacy of the region. Children study the collections, families make visits, schools use their resources and, in many cases, teachers have been trained by the museum.

- Almost 50 million adults visited art museums in 1992, an increase of more than 13 million in the last ten years. Many of the new attendees have added an important element of diversity to the traditional museum audience; 19% of the adult black population visited an art museum in 1992 as did 29% of the Asian population. Of those who earned less than $15,000 annually, 11% of the adults visited an art museum. (Art Participation in America: 1982 - 1992. A survey funded by the National Endowment for the Arts and conducted by the U.S. Bureau of the Census.)

- For the 180 members of the Association of Art Museum Directors (AAMD), responding to the 1994 Statistical Survey prepared by the Association, the diversity of the museum audience is reflected in individual and family memberships which number almost 1.5 million and volunteers whose ranks are over 65,000.

III. Economic Profile

Art museums significantly *impact local economies*. In the statistical survey cited above, 180 AAMD members reported that their art museums:

- employ approximately 22,000
- spend on salary and benefits $627,000,000
- pay energy costs of $53,000,000
- purchase capital improvements of $130,000,000

Museums offer outstanding educational programs in their communities and design these programs for entire inner-city school systems or for special small groups. For example, The Detroit Institute of Arts has sponsored a children's art show for the Detroit Department of Public Schools for 58 years. Last year 3,000 children came to the museum with their parents to see their art work displayed.

The Arkansas Arts Center, which serves over 2,000 children a year, has a special program for four young people from the Alternative Learning Center in Pulaski County, a facility for children with severe academic deficiencies and behavioral problems. The counselor at the Alternative Learning Center is such a vocal proponent of the importance of art in alternative education that he personally drives the four students from Scott to Little Rock for the art class, because none is offered at the Learning Center.

Once in the class, the students are loath to leave. The teacher of the class said that the students are quiet and attentive and do not quickly give up on difficult projects: "They stick with it, even if it is hard or something they do not like to do" she reported. The counselor felt that after only a few classes the children exhibited improved behavior and increased social interaction. The Learning Center is trying to expand the program to include all the children in the Center.

The Memorial Art Gallery in Rochester, NY offers a series of courses to early childhood educators and child care providers to instruct them in ways to more effectively integrate the visual arts into their programs. The program, Teaching Art to Young Children, seeks to reach the greatest number of children by teaching their teachers. Over 9,000 children were impacted by the program last year in centers run by such organizations as the Volunteers of America, YMCA, Head Start and Family Learning Center.

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FIELD AT A GLANCE: PERFORMING ARTS PRESENTERS

I. Introductory Statement

Performing arts presenters share one characteristic--they present touring artists to the communities they serve. Presenters are generally distinguished from producing organizations (like theatre and opera companies) that employ a group of performers to create productions. Presenters might be thought of as "exhibitors" of the performing arts.

The number of nonprofit presenting organizations in this country has grown from fewer than 400 in 1965 to more than 3,000 today. Presenting organizations include urban performing arts centers, like the Society for the Performing Arts in Houston, Texas as well as renovated facilities like the Myrna Loy Center in Helena, Montana. In some rural communities, the presenter may be the only sponsor of the performing arts in the area. Festivals such as the Arts Festival of Atlanta, Georgia are presenters. While many presenters are independent nonprofits, like the Broadway Center for the Performing Arts in Tacoma, Washington, others are part of a larger host institution, like the presenting series at the University of Arizona at Tucson.

Presenters bring the arts to the communities in every state across America. Research conducted by the Association of Performing Arts Presenters are located in rural areas (16%), small cities (35%), suburban areas (13%) and urban areas (35%). The 550 of organizations surveyed presented 19,212 performance to more than 18 million audience members.

II. Community Impact Examples

- Outreach Fact: Presenters give back to their communities. 51% of presenters offer free tickets through programs serving the poor, elderly, and at-risk youth. 34% of presenters offer free tickets to economically disadvantaged people.

- Education Fact: Presenters value education. More than 75% of the presenting organizations surveyed offer educational programs for students in kindergarten through high school. For adults, more than 64% offered lecture/demonstrations or pre- or post- performance discussions with artists. Almost half of presenters offer either apprenticeships or internships. 35% presenters reside in higher education institutions.

- At the **Society for the Performing Arts** in Houston, Texas, Executive Director Toby Mattox brings to the 45,000 people he serves in the greater Houston area world-class entertainment each year. Past seasons have included world-renown touring artists such as mime Marcel Marceau, author and story-teller Spaulding Gray, the Pickle Family Circus and the critically-acclaimed Turtle Island String Quartet. Mattox also understands the

(OVER)

for the Performing Arts is able to offer free tickets to economically disadvantaged middle and high school students. The Society's "Adopt-a-School" program also brings artists into the local schools and community centers to offer master classes in music, dance and theater as well as provide free tickets to performances of the visiting artists. The Society's programs have benefited from support through the Music, Dance and Presenting Programs of the National Endowment for the Arts.

- The mission of the **Arts Experiment Station** in Tifton, Gerogia is to create an environment in a rural area in which the arts can thrive." In 1976 the Arts Experiment Station began to fulfill its main objective: to make the arts available to people of all walks of life; to nurture, sustain and present both fine and indigenous arts and artists; and to serve as catalyst for development, resource center and coordinator for arts groups, schools, civic and governmental agencies in region. Over the course of its existence, the Arts Experiment Station has completed many projects with the community in the following ways, brought artists/performers to eight school systems, leading to annual funding from six systems and annual programs reaching over 25.000 students; initiated a project with the American Folklife Center to survey/document folk cultural traditions of Georgia, with exhibit opening at the Library of Congress; served as a pilot site for the NEA Chamber Music in Rural Communities program.

III. Economic Profile

Economic Fact: *Presenters have diversified support*. While ticket and other earned income account for an average of 61% of presenter's revenue, the critical gap is closed by multiple funding streams. Although the National Endowment for the Arts funding constitutes only 2% of presenters' revenue, it leverages additional moneys from other sources. Contributions from individuals, foundations and corporations comprise 15% and income from the endowments accounted for 5%. Host institution support, such as university registration fees, average 10%.

The NEA has served as a key source of funding for the Society for the Performing Arts in Houston. In 1987 the Society received a $200,000 *NEA Challenge* grant that leveraged $800.000 to establish their endowment. As Mattox put it "Not only did the NEA grant help expand our programming, it encouraged local funders and served as a catalyst for both corporate and individual giving." Not only did these funds serve as "seed money", they allowed the Society to expand their work with the diverse communities in and around Houston. One of their projects included bringing in the Dance Theatre of Harlem to engage the African-American community.

The Arts Experiment Station was founded through a $25,000 grant from the NEA 16 years ago. The NEA provided the initial funding for the Station. According to Director Syd Blackmarr, "Without these dollars we would not have been able to begin the work here in South Georgia. *Follow up funds for operating and program support* have continued through the years...with that we have made significant strides in arts development." Because of the continued federal support from the NEA, the Station has been instrumental in creating on-going programs in schools in five counties; created discipline organizations; assisted in the restoration of several buildings for the arts; and created an acceptance and awareness of the arts never present before in southern Georgia.

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FIELD AT A GLANCE: DANCE

I. Introductory Statement

Dance/USA, the national service organization for nonprofit, professional dance, represents the entire field of professional dance. Dance/USA's membership currently consists of 124 ballet, modern, ethnic, jazz and tap companies, 36 dance service and presenting organizations, and 113 individuals concerned with the future of professional dance.

The National Endowment for the Arts has had a great impact on the dance field in many ways, especially in terms of the size of the field, the leveraging effect of NEA funds, support for outreach and touring programs, and the ability to convene around issues of significance to the entire nonprofit dance community.

Size of Field: In 1965, there were only 35 professional dance companies in the United States; today there are more than 660.

Leveraging Effect: Each dollar the NEA provides in funding leverages $11 in private sector matching support.

Support for Outreach and Touring: Through support from the NEA, dance companies are able to tour across state lines, to rural communities, and to under-served areas. According to Domestic Dance Touring, a study conducted by Dance/USA to develop a more comprehensive understanding of domestic touring, the Federal government's presence in dance touring is vital. As the vehicle for Federal commitment to the principle of dance touring, as the largest single source of dance touring support, and as the agency that has had the most influence in shaping the country's dance touring system, the National Endowment for the Arts is an irreplaceable partner in guaranteeing that the finest in American dance is accessible to citizens across the land through widespread touring activity.

Ability to Convene: The National Endowment for the Arts serves an important role as a national forum for the dance field to meet and communicate. Through policy-oriented discussion by dance professionals in overview panels as well as the practical activity of peer panel application review, the NEA serves as a facilitator for important national dialogue in the dance field.

II. Community Impact Examples

- Dance companies play vital roles in their local communities as artists and educators; historians and storytellers; employers and taxpayers.

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- An NEA Dance Company Grant of $12,000 for touring support allowed the **Eugene Ballet Company (EBC)** of Eugene, Oregon to secure matching funds and implement Educational Outreach Programs that will be performed throughout 10 western states (OR, WA, CA, MT, WY, ID, AZ, NM, CO, SD) in 1994-5. This funding allows EBC to present 68 tour performances in 50 different rural and urban communities throughout the West. In addition, 45 in-school performances of the Native-American based "Children of the Raven" ballet were presented for students of all ages. Through separate, NEA sponsored "Dance On Tour" residencies in New Mexico and Arizona, the EBC presented programs relating to "Children of the Raven" in 14 additional rural communities. The "Children of the Raven" program was remarkably effective in incorporating students into the evolution of the performance. Children were involved with everything from creating crests for totem poles to participating in the dance at the conclusion of the program. While in residency in a number of these communities, the Company had the opportunity to work with Pueblo, Navajo and Hopi Native Americans. Through this interaction, including work with EBC Native American storyteller Ed Edmo, EBC created a new work which premieres during the 1995 dance season.

- **Stuart Pimsler Dance & Theater**, Columbus, OH choreographer Stuart Pimsler received a $20,000 Choreographers Fellowship that allowed him to research and travel for the program, "Caring for the Caregiver." A movement and expression workshop for healthcare professionals, "Caring for the Caregiver," offers a creative outlet for the stresses and complex emotional issues often experienced by members of these professions. Pimsler specifically designs the program for each community he visits. "Caring for the Caregiver" has reached over 2,500 people and traveled from Florida to Canada.

III. Economic Profile

The following information is based on a Fiscal Year 1993 survey of fiscal activities from 50 member companies: 26 ballet companies and 24 modern/other companies.

Financial Picture: The dance field is struggling to recover from a *recessionary period*. While 60% of the companies surveyed evidenced gains in the current year, 60% continue to carry cumulative deficits.

Federal Funding: Federal funding for the 50 companies reporting accounted for 48% of total government support (federal, state, and local) and totaled $3,643,924.

Personnel: The largest portion of dance company budgets is devoted to *personnel expenses. Salaries and benefits comprise 57% of total expenses* for the companies surveyed yet the average dancer was only employed for 35 weeks during FY 1993.

Dance/USA's survey figures demonstrate the significance of NEA funding to dance companies' fiscal health and ability to continue operations in a responsible way. Out of 50 participating companies in the survey, 82% received direct federal grant support. Over one third (38%) of these companies reported operating losses and *if federal support had not existed, the number of companies reporting losses would have increased to over 70%.* In most cases, federal support exceeded operating gains by more than 33% of those gains. Withdrawing federal support would create significant, rather than minor, shortfalls.

Utah's Repertory Dance Theatre has had much success with its education project, Project Separate Journeys, which was developed in 1992 with *seed money* from the NEA. It began as an evening length concert which is now the basis of a series of free outreach activities in the schools. The award winning project addresses the issues of ethnic identity, discrimination and acculturation as it deals with the history and experiences of five ethnic communities in the American West. In the past three years, Project Separate Journeys has reached over 60,000 students and teachers in Utah. Funding from the NEA was matched almost 12 times over. The NEA grant of $27,200 leveraged $315,050 in *matching support* from the following sources: U.S. West, Kennecott Corporation, Chevron Companies, S.J. & Jessie E. Quinney Foundation, Dumke Foundation, L.T. Dee/Janet E. Dee Foundation, AT&T, Steiner Foundation, Rosenblatt Memorial Foundation, Ray, Quinney & Nebeker Foundation, Greek Orthodox Community, Bass Foundation, Snowbird Institute for Arts and Humanities, Utah Humanities Council, Utah Arts Council. The funding produced a multi-media dance drama, free performances for 6,000 students, a booklet on the ethnic cultural history of Utah, curriculum, resource material and study guides for 80 schools, a video of the performance for all school libraries in Utah, 60 free in-school lecture-demonstrations, movement classes for 6,000 students, and day long workshops for 152 teachers.

BalletMet, of Columbus experienced the economic impact of the NEA from many different directions. *The National Arts Stabilization Fund (NASF)* in Columbus, OH, has committed $2 million to the creation of a local stabilization project which will benefit central Ohio's eight major arts organizations (one of which is BalletMet). An $800,000 grant from the NEA has served as the cornerstone of a required $4.9 million local match. BalletMet also receives indirect support from the NEA through the Ohio Arts Council in addition to direct grants ($20,000 in FY94) that have recently been designated toward rehearsal support for the creation and performance of new work.

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ALLIANCE

FIELD AT A GLANCE: OPERA

I. Introductory Statement

America's opera companies are a diverse group. They range in size from tiny Mississippi Opera in Jackson (annual budget: $181,274) to The Metropolitan Opera in New York (annual budget: $126,098,000). They are located in 39 states, including North Dakota, Michigan, Pennsylvania, Ohio, Georgia and Texas, as well as California and New York. Some companies specialize in bold new works; others present grand opera in all its glorious tradition.

Despite continuing financial challenges, opera in America has never been stronger, more creative, and more popular. Audiences increase each year. Productive education and outreach programs touch the lives of many hundreds of thousands of individuals who do not attend mainstage performances. Imaginative new works stretch the boundaries of the art form. America's opera houses are respected the world over for their high artistic standards.

The impact of the National Endowment for the Arts on the growth of American opera cannot be underestimated. The Endowment has been vital to the continuing financial health of many opera companies, not only because of direct dollars granted for operations and educational outreach, but also because of the "seal of approval" which accompanies these grants, leveraging additional funds.

OPERA America, the service organization for professional opera, has gathered the following statistical information about the field for the latest available year (1993).

II. Community Impact Examples

- Opera companies across the country provide almost 20,000 jobs each year and add close to $375 million to the economy. Factoring in the dollars spent by opera patrons for meals, transportation, and lodging in addition to their tickets, the economic impact of opera amounts to more than $1 billion annually.

- For example, in 1994, **San Diego Opera** had on its payroll 502 artists, technicians, and other employees, who earned and paid taxes on over $4 million. The Opera contributes to San Diego's vital cultural arts community, which is estimated to have a direct economic benefit to the metropolitan area of over $250 million annually.

- Over 93 percent of **OPERA America** companies maintain educational and outreach programs in their communities. In some communities, these activities take the form of traditional enrichment programs that go a long way toward filling the void left by discontinued arts education in schools. In other localities, opera companies use their

(OVER)

considerable creative resources to help young people communicate the realities of their lives via disciplined artistic expression.

- Opera companies contribute to the revitalization of their communities' urban core. In downtown Detroit, **Michigan Opera Theatre** recently completed renovation of a historic movie theater into an opera house. The $12.3 million project joined a performing arts district that is producing dramatic economic growth for the city. New tenants occupy over 300,000 square feet of commercial space, seven new restaurants have opened, and 1,500 new full and part-time jobs have been created in the downtown area.

- Opera continues to make huge gains in popularity among the American people. Opera audiences have increased almost 30 percent since 1980. In addition to record mainstage season attendance, millions more attended an opera company education, outreach, or touring program.

III. Economic Profile

In 1993, support for opera from the National Endowment for the Arts was $5.9 million, with total contributed income for the country's opera companies reaching $106.5 million. Although covering only 1.5 percent of their total budgets, opera companies confirm that the *NEA grants* are an essential factor in securing major gifts from the private sector. For example, administrators at The Atlanta Opera report that the NEA grant, with its stringent peer review process and on-site evaluations, acts as a strong indicator of the company's quality and national stature to other funders. In 1993, The Atlanta Opera received $12,500 in NEA funds and $950,000 from other supporters.

NEA Challenge Grants, in particular, have a major financial impact on their recipients. These grants, requiring significant matches from other income sources, often are key to companies' growth or survival. The Dallas Opera recently has received a $300,000 challenge grant to strengthen its community/minority outreach programs. This grant, when matched as required in a three to one ratio, will yield $1.2 million that will enable people new to opera from throughout the greater Dallas area to experience this unique art form.

Despite record gains in box office revenue, the field continues to experience an aggregate deficit, due in large measure to *dwindling government support*. In 1993, opera box offices again posted significant gains, with the total of ticket sales and other earned income up by 8 percent to $229,719,231, or 55 percent of all income to companies. This bright picture is clouded by significant decreases in government support, including a 3 percent decrease in state and local government grants.

While this overall drop in government funding ocurred, private giving also lost ground. *Foundation giving* posted only small gains, and individual contributions barely held steady. The major decline came in corporate and business giving, which fell by 5 percent. In all, opera companies in the U.S. experienced an aggregate shortfall of $5,620,254, with about 40 percent of the companies posting deficits.

FIELD AT A GLANCE: THEATRE

I. Introductory Statement

Thirty-five years ago, the nonprofit professional theatre in America consisted of only 16 theatres. These companies pioneered a new way of making theatre in an institutional setting. Organizations specifically established for educational and charitable purposes, they eschewed the project-oriented ethos of the New York-based commercial theatre, which reached out to the rest of the nation only through touring "road shows." The result was a true explosion of theatrical activity across the country throughout the 1960's and 1970's.

Today, the nonprofit theatre field consists of a diverse group of more than 400 theatres -- theatres located in major metropolitan centers, rural communities, urban neighborhoods and suburbs. They engage in work from a wide-ranging repertoire that includes classics; modern plays and musicals; new plays, adaptations and translations by American and international writers; plays aimed at culturally diverse and young audiences; experimental, multi-media and performance art works.

Collectively, the nation's theatres play to an annual audience of well over 20 million Americans. Millions more participate in the broad range of outreach and educational programs offered by the theatres -- touring productions, artists-in-the-schools, teacher training, workshops and lectures in local community centers and libraries, theatre classes, internships for college students, special programs for at-risk children, and lifelong-learning opportunities.

The NEA has played a pivotal role in development and growth of the field since the agency's inception. By supporting the nation's finest theatre institutions, the NEA has contributed far beyond the actual monetary value of its grants -- the leveraging effect of NEA grants works to attract other private and public funding, through matching requirements as well as the symbolic imprimatur an NEA grant represents. In addition, nearly every Pulitzer Prize-winning play since 1976 originated at an NEA-funded theatre, and a network of educational and outreach programs has sprung up across the country as a result of NEA support, ensuring access to all Americans and developing new generations of audiences.

Theatre Communications Group, the national organization for the American professional theatre, annually gathers and analyzes statistical information on the theatre field.

II. Community Impact Examples

- The 231 nonprofit professional theatres surveyed in Theatre Communications Group's most recent national survey employed more than 34.000 employees in the 1993-94 fiscal year -- actors. directors, playwrights, administrators and technicians -- and an additional 40.000

(OVER)

volunteers. These same 231 theatres constituted a $460-million industry, with an economic impact of many times that number in indirect expenditure and employment generated by these institutions.

- For example, the **Alliance Theatre** in Atlanta, Georgia relies on its seasonal support from the NEA Theater Program to operate its season of 461 resident performances and 362 touring performances. The theatre employed 516 theatre workers in 1994, who paid federal and local taxes on $3.3 million of wages, and whose work was augmented by an additional 729 volunteers. The Alliance is particularly proud of its extensive education and outreach programs, which include accredited teacher training courses and workshops that focuses on integrating dramatic arts into basic school curriculum in grades PreK - 12; a program for young high school playwrights; matinees for school students with special study materials and workshops; public seminars with theatre artists; and a host of other activities. Participants in the full array of these programs included 153,000 children and adults in the 1993-94 season.

- Another NEA-funded theatre, San Diego's **Old Globe Theatre**, annually presents 12 productions and 600 performances on its three Balboa Park stages. Nearly 280,000 people attended performances at the 58-year old theatre in 1993, and an additional 65,000 participated in its education and outreach programs. The Globe's Teatro Meta focuses on the inclusion of multicultural artists into all aspects of the theatre's productions, programs and community services, offering audiences new insights into diverse peoples and cultures, as well as offering a wide assortment of employment and performance opportunities for people of color. The Teatro Meta In-Schools program emphasizes theatre as an outlet for students at high risk of dropping out. Providing discipline and a renewed sense of self-worth and determination, this program annually reaches hundreds of at-risk students through area schools.

III. Economic Profile

TCG's statistical research reveals how critical each and every income component is to the financial well-being of the nonprofit professional theatre. Forced to continue to stretch their limited resources, the nation's theatres are struggling to balance the institutional efficiency required for survival with the artistic growth and development necessary to fulfill their missions. Theatres are fighting economic trends that threaten to curtail their ability to reach underserved members of the population, cultivate new work through research and development activities, and develop new audiences through educational and outreach programs.

While support for theatres from the NEA in 1994 represented only 1.9 percent of their total operating expenses -- far less than contributions from foundations, corporations, and individual donors -- the impact of those grants go far beyond their dollar value. The $59,000 NEA grant for seasonal support received by Houston's Alley Theatre, for example, confirmed its position as a nationally-recognized institution of high artistic merit, opening new doors to other local and national grantmakers.

Because of the stringent 3-to-1 matching requirements for *NEA Challenge Grants*, their financial impact is particularly strong. Atlanta's Alliance Theatre, a 1993 Challenge Grant recipient, will raise $3 million in new funds to match the $1 million awarded by the NEA. The $4 million will be used to eliminate the theatre's deficit and build its endowment -- funds that would have been impossible to raise without the NEA's support.

Funding from the NEA remains a vital component in the theatre field's fragile economic structure. Earned income -- composed predominantly of box-office receipts -- barely grew at all in 1994, well below the rate of inflation for the year, and *corporate contributions* remained virtually flat. Despite gains in private giving from foundations and individuals, and a partial recovery of funds lost the previous year from state arts agencies, theatres were not able to mitigate the longterm damage caused by the recession in the earlier part of the decade and the erosion of government funding.

More than half the theatres surveyed in 1994 ended the year in the red, with the aggregate deficit topping $5.1 million.

FRIDAY, MARCH 24, 1995.

U.S. BUREAU OF MINES

WITNESSES

EMIL ROMAGNOLI, DIRECTOR OF GOVERNMENT AFFAIRS, ASARCO, INC., SANTA CRUZ JOINT VENTURE
JIM MAGNER, CONSULTANT

Mr. REGULA. Okay. Next we have ASARCO, Santa Cruz Joint Venture.

Mr. ROMAGNOLI. Yes, sir. Thank you very much.

Mr. REGULA. You are supporting the Bureau of Mines?

Mr. ROMAGNOLI. We are supporting the Bureau of Mines generally, and we are supporting the *in situ* project that is managed by the Bureau of Mines.

My name is Emil Romagnoli, Mr. Chairman. I am director of government affairs for ASARCO, Incorporated, which is a U.S. mining and mineral processing company. ASARCO is the operating partner in a 50/50 joint venture which is called the Santa Cruz Joint Venture. And my statement is on behalf of that joint venture.

Mr. REGULA. It will be of course a part of the record.

Mr. ROMAGNOLI. Thank you, sir.

With me this morning also is Mr. James Magner who is a consultant to the joint venture, who may help me with any questions.

Mr. REGULA. What is the purpose of the venture?

Mr. ROMAGNOLI. The purpose of the joint venture is to manage a project that is under the Bureau of Mines' oversight, to conduct a field test on the in situ or deep leaching of copper oxide deposits for the Bureau of Mines.

Mr. REGULA. Is this a match and if so, what percentage?

Mr. MAGNER. 75/25.

Mr. REGULA. Seventy-five Federal?

Mr. ROMAGNOLI. The cost sharing is 75/25.

Mr. REGULA. This is for production of copper?

Mr. ROMAGNOLI. Yes, sir.

Mr. REGULA. When there is a surplus of copper as I read, why would we spend money to produce more? Or was the idea to get a new technology to get reserves that otherwise would be uneconomic?

Mr. ROMAGNOLI. Yes, sir, I think it is the latter. I think the idea here is looking more over the long term, competitiveness in the copper industry worldwide is based on cost and on innovative technologies to keep costs——

Mr. REGULA. Tell me how this works. Is the copper normally mined in an open pit? What would your technique provide that will be different?

Mr. ROMAGNOLI. Copper normally is either open pit or can be underground mines also.

Mr. REGULA. Shaft?

Mr. ROMAGNOLI. Shaft mines. But more typically, you are right, in today's world it is an open pit technology. This is a completely new idea which is to go into the ore body at very deep levels, which are oxide deposits that are typically unreachable. You inject solution down into the ore body.

Mr. REGULA. But is this some type of an acidic solution, like sulfuric acid?

Mr. ROMAGNOLI. It would be a mild solution of sulfuric acid. That has not been done yet because it has only been recently in this last year that we have been granted the environmental permits that would enable to us do that.

Mr. REGULA. And that combines with the copper and you bring it up in a liquid form?

Mr. ROMAGNOLI. Yes, sir, under pressure it would be brought up under—in another well that has been drilled.

Mr. REGULA. You have parallel wells?

Mr. ROMAGNOLI. Yes, sir. And then you have on the surface what we call an SXEW, a solvent extraction electrical winnowing plant, which would convert the solution to metallic copper.

Mr. REGULA. Is the copper in an ore?—is it mixed with foreign material that you have to separate?

Mr. ROMAGNOLI. Yes, sir, the copper is mixed in an ore body that contains——

Mr. REGULA. And using this technique, does only the copper get back to the surface?

Mr. ROMAGNOLI. It is only the copper, yes, sir.

Mr. REGULA. So the acidic material would leach the copper out of the ore, and bring it back in?

Mr. ROMAGNOLI. And under pressure would come back up.

Mr. REGULA. What kind of costs are you looking at as compared to, say, an open pit mine?

Mr. ROMAGNOLI. Substantially lower. The Bureau of Mines, when this whole project was initiated, first did a study to evaluate what the costs are. Typically, nationally, national average costs for producing copper in the United States today is in the neighborhood of 60 to 70 cents a pound, depending on the mine.

As I recall—and maybe you might help me, Jim—as I recall, the Bureau of Mines' initial study concluded that this technology, if it can be proven, could yield costs in the neighborhood of 30, 35 cents.

Mr. REGULA. But it is not yet proven. That is the hang-up, I gather. And what are you talking about, three, four years, to bring it to commercial level?

Mr. ROMAGNOLI. Well, approximately. We are on the brink of the next phase, which is with the environment permits in hand we can begin construction of the——

Mr. REGULA. So you have not yet drilled a couple wells and really have done this, am I right?

Mr. ROMAGNOLI. The test to date has entailed drilling wells, using saline solution, not an acid solution, under the environmental laws, to determine whether or not the whole idea would work. And those tests have proven highly successful.

Mr. REGULA. How deep do you go?

Mr. ROMAGNOLI. It is to 1,500 feet.

Mr. REGULA. How do you find these ore bodies? By test drilling?

Mr. ROMAGNOLI. Geologists have done it by test drilling, yes, sir.

Mr. REGULA. We are out of time. But I would like to find out how these things work.

Mr. ROMAGNOLI. Yes, sir.

Mr. MAGNER. We have a videotape we would love to drop off.

Mr. ROMAGNOLI. We would be happy to come in or else bring additional experts in to meet with you, sir. We are not asking for additional money. As you can see from our statement, we are just asking for continued support of the project by the committee, sir, and support the Bureau of Mines.

Mr. REGULA. Well, we will take a look. This is a tough year.

Mr. MAGNER. If we could add to that, Mr. Chairman, we would like to say also that the Bureau of Mines is going to be a tremendous investment in the future of mining in this country, for a very small amount of money, relatively. We think we get costs down, with cost-sharing partnerships like this one, but generally we think the Bureau of Mines, you know, the mission should remain within the Bureau if at all possible.

Mr. REGULA. Okay. Thank you very much for your time.

[The information follows:]

Outside Witness Hearings
March 24, 1995
Subcommittee on the Interior and Related Agencies
Committee on Appropriations

Statement of Emil A. Romagnoli
for the Santa Cruz Joint Venture

In Situ Copper Mining Research Project
U.S. Bureau of Mines

My name is Emil A. Romagnoli. I am Director of Government Affairs for Asarco Incorporated, a mining and minerals processing company. Asarco is the operating partner in a 50-50 joint venture called the Santa Cruz Joint Venture. This statement is on behalf of the Santa Cruz Joint Venture.

Thank you, Mr. Chairman, for the opportunity to provide testimony to the Interior Subcommittee of the Committee on Appropriations regarding the status of the In Situ Copper Mining Research Project at the Santa Cruz field test site near Casa Grande, Arizona. This project operates under a cost sharing cooperative agreement between the U.S. Bureau of Mines and the Santa Cruz Joint Venture.

I would first like to express my appreciation for the support this Committee has provided through funding and program direction.

As the non-federal partner in the project, the Santa Cruz Joint Venture (SCJV) is the prime contractor, reporting to the Bureau of Mines. We work closely with the Bureau personnel from the Advanced Mining Division in both their general oversight role, and in applying their laboratory research and testing results.

I am pleased to report that the in situ project has achieved an important milestone. We have received the Aquifer Protection Permit (APP) from the Arizona Department of Environmental Quality (ADEQ), as well as an Air Quality Permit from Pinal County, Arizona. This has been a long and complex process. These are the first permits ever issued for an in situ leaching project for a deposit that has not been previously mined. It has been a learning experience for all involved.

Parallel to the permitting process, the Bureau of Mines conducted the Environmental Assessment as required by the National Environmental Policy Act, (NEPA). A public hearing was held on September 14, 1994, to receive comments on this study. The assessment report was well received and there were no negative comments or concerns expressed. On December 1, the Bureau of Mines issued a Finding of No Significant Impact (FONSI).

With the receipt of the environmental permits and the FONSI we will proceed to the construction of the solvent extraction/electrowinning plant, and related surface facilities.

As you know, the Congress appropriated $200,000 for FY95 for the field test. These funds will be used to commission and test the plant and all of the facilities and equipment to assure the integrity of the hydraulic systems before the mining test is begun.

We believe that commissioning could be completed by early 1996, followed by the injection of the leach solution and recovery of copper, the principal objective of the of the program. However, anticipating some procurement and construction delays, it is likely that the construction process will continue through FY 96.

For this reason, we do not believe additional funds will be necessary for the field test in FY96, and ask the Committee to simply include language in the Report directing the Bureau to continue with the project in FY96.

In FY95, the Committee appropriated $500,000 for the Bureau's in-house research activities related to the in situ project. Those activities include the completion of the NEPA process, conducting the public meeting, and a great deal of technical support and research. The principal activity, however, is the supervision of the procurement and construction process which is required by the NEPA document.

In FY96, with the continuation of construction, and a corresponding level of activities, including continued research related to hydrologic and geologic modeling, a similar level of funding will be necessary. It is our understanding that the Bureau includes a request of approximately $400,000 in the Budget submitted by the President. We would ask that the Report language earmark at least this amount of funding for that purpose.

We understand fully, Mr. Chairman, the enormous pressures on the Committee to cut spending and downsize the various agencies. In that regard we believe that one of the most effective ways to downsize government without completely sacrificing the often legitimate and valuable missions of the agencies is to establish partnerships with the private sector. We believe the in situ program to be an excellent example of a successful partnership, and that lessons learned during this project may contribute to the success of future government-industry partnerships.

The SCJV has been willing to make a substantial contribution to advancing a technology, with all of the attendant learning experiences, which will be in the public domain. We have done so because we believe in the future of this technology. However, to attract companies to make an investment and a long-term commitment, there must be a corresponding commitment on the part of the government. There will be an understandable hesitation on the part of the private sector to make a substantial long-term financial commitment if the federal partner can simply elect to withdraw from the program at any given fiscal year.

The federal contribution since FY88 for the field test has been substantial, over $16 million, (the non-federal contribution has been approximately $5.5 million, for a total of almost $22 million for the field test), with another $6 million in federal appropriations for the Bureau's in-house in situ research program. That investment could be lost if the project is halted, or if the program is continued solely by the private sector. However, if the federal government sustains the partnership, the information gained from the mining test will remain in the public domain. The remaining costs to complete the test phase over the next two or three years, depending on the data received, will be comparatively minor, approximately $200,000 to $300,000 a year.

And I think it is very important to note that the benefits of the program are not limited to advances in the copper mining technologies. The discoveries already made in the "tracer tests" involving the injection and recovery wells, and in the research program, have revealed very important applications of the technology beyond the original purposes of the program.

There is a possibility, for example, that the technology could be used in environmental remediation of waste sites. This would include underground stabilization and removal of chemical and biological contamination, and could include the placement of physical barriers at a wide variation of depths.

There are also opportunities for in situ geothermal energy generation.

But one of the most obvious benefits is the low impact nature of the technology. We are able to help supply a resource to a rapidly growing worldwide demand for minerals, particularly copper, with very few environmental effects. There is no surface disruption or underground mining, and no requirement for smelting to remove the copper from the ore.

Thank you again for the opportunity to testify in these hearings. I will be happy to answer any questions that the Committee might have.

FRIDAY, MARCH 24, 1995.

DOE: FOSSIL ENERGY

WITNESS

RALPH NURNBERGER, ZTEK CORPORATION

Mr. REGULA. ZTEK Corporation. Good morning. Thank you for coming. Your statement is a part of the record. Summarize, please.

Mr. NURNBERGER. Good, I was just going to begin by asking for that.

My name is Ralph Nurnberger, so we at least share a good first name in common. I am testifying on behalf of Dr. Michael Hsu, who is the president of ZTEK Corporation in Waltham, Mass. He was unable to attend——

Mr. REGULA. What does ZTEK do? What are you interested in?

Mr. NURNBERGER. They are interested in fuel cells, and they have been awarded a grant in 1993. They responded to a DOE solicitation for advanced solid oxide fuel cells and was selected to receive it. It was part of the Interior Appropriations bill at the time, which was H.R. 4602. And essentially, I am testifying to encourage you to continue what you have been doing.

There has been some problem about receiving the full funding that they had been told that they would be receiving from the Department of Energy, and we would like any assistance that you can to make sure that the funding that has been promised will ultimately arrive. The program itself is being developed with support from a number of utilities, Tennessee Valley, TVA, the Electric Power Research Institute, EPRI, and it applies to the fossil fuels program managed by DOE.

They expect to have a 250 kilowatt system working by the year 1998 and expect that in turn to be a multi-megawatt power plant project. Funding right now is about $20 million, half of which ZTEK and its consortium members pay, half of which they hope to continue to receive from the Department of Energy. And——

Mr. REGULA. It is a 50/50 match?

Mr. NURNBERGER. Approximately, yes.

Mr. REGULA. When will it be commercial?

Mr. NURNBERGER. They expect to have the system working by 1998. And again I am not a scientist. My Ph.D. is in history, so I study dead people.

Mr. REGULA. Well, I don't know if this is the right committee. I hope not.

Mr. NURNBERGER. Actually, my students at Georgetown would refer to it as more alive people in any case. They feel that their technology will offer lower costs, simplify plant design, higher efficiency, and as a result a lower cost system. And obviously DOE agreed with that when they gave them the initial award.

And as I mentioned, they expect to have the prototype working by 1998, and then that in turn will set up for an upscale model with the support of EPRI, TVA and other utility programs.

Mr. REGULA. Okay. Thank you very much.

Mr. NURNBERGER. I thank you for your time.

[The information follows:]

TESTIMONY OF DR. MICHAEL HSU
PRESIDENT, ZTEK CORPORATION
BEFORE THE
SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR
AND RELATED AGENCIES
HOUSE COMMITTEE ON APPROPRIATIONS

March 24, 1995

INTRODUCTION

Mr. Chairman and Members of the Subcommittee, my name is Dr. Ralph Nurnberger. I am testifying on behalf of Dr. Michael Hsu, President of Ztek Corporation of Waltham, Massachusetts. Dr. Hsu expresses his sincere apology for being unable to appear in person for this important occasion and appreciates the opportunity to provide testimony of an impressive breakthrough fuel cell technology - the **Fuel Cell Turbo Power System** for Utility Power Generation. This technology has been developed with support from the Tennessee Valley Authority (TVA) and the Electric Power Research Institute (EPRI). It applies to programs of the Department of Energy (DOE), managed by the Office of Fossil Energy.

We expect to have a 250kW system working by 1998, which will be the building block for multi-megawatt commercial power plants. This program has an overall budget requirement of $20 million, half of which will be funded by Ztek and its utility consortium members. We hope that the Department of Energy will fund the remaining half of the project, as an investment in a clean, cost-efficient technology.

An appropriation of $3 million in Fiscal Year 1996 for this ultra-efficient technology will greatly enhance the DOE fuel cell program. This technology has been selected by the utility industry as uniquely positioned to accomplish rapid commercialization with low development cost and an exceptional high payoff to the U.S. This technology has the potential to leapfrog the U.S way ahead of the Japanese in the application of fuel cells to commercial power generation.

A FUEL CELL TECHNOLOGY READY FOR ACCELERATED DEVELOPMENT AND COMMERCIALIZATION

Ztek Corporation appreciates the opportunity to provide information on the technology and applications for the **Fuel Cell Turbo Power System**. This technology provides significant advantages and benefits compared to projections for the traditional technologies: Phosphoric Acid Fuel Cells (PAFC), Molten Carbonate Fuel Cells (MCFC), and Tubular Solid Oxide Fuel Cells (SOFC). By comparison, the Fuel Cell Turbo Power System offers low manufacturing costs , simplified plant design, ultra-high efficiency, and a resulting in low cost system.

As the fuel cell industry approaches product maturity, it is important to recognize that fuel cell power plants are entering a highly competitive utility industry. They must compete, with respect to both cost and efficiency, with many types of power generation, not just other fuel cell technologies.

The inability of other technologies to reduce system complexity has kept all fuel cell technologies from breaking through the barriers to the commercial power market. The system complexity is not only associated with the fuel cell stack, but particularly with the lack of necessary thermal integration engineering with the Balance of Plant in the power system. This has emerged as a heavy burden to all other fuel cell systems.

Ztek's innovative integrated approach, the Fuel Cell Turbo Power System, solves these problems by providing a cost-effective solution for simplified Balance of Plant and an accelerated approach to development of practical power systems. The advantages of Fuel Cell Turbo Power System include significant reduction in hardware costs, virtual pollution-free power generation, and ultra-high efficiency approaching 70%.

It is worth noting that Ztek's highly integrated system approach is presently recognized in the power industry as being on the verge of becoming a viable commercial product, predominantly due to the simplicity of its system. Ztek has gained significant support from the utility industry with the formal establishment of a Utility Consortium. The utility enthusiasm is based upon:

- The high performance of the Ztek ATI® Planar Solid Oxide Fuel Cell Stack currently in testing under atmospheric pressure.
- The Fuel Cell Turbo Power System representing a "breakthrough" for unique high efficiency and low cost power generation.
- The promise of early commercialization for broad utility applications including: Distributed Generation, Central Power Plants, Biomass and Integrated Gasification Fuel Cell Systems.

UTILITY AND POWER INDUSTRY PARTICIPATION

Ztek is currently involved in a TVA/EPRI Collaboration project which was initiated in September 1992. This program involves functional testing of Ztek's advanced ATI® Planar Solid Oxide Fuel Cell Stack and design scale-up for utility power generation applications. Several associated power equipment companies are participating in this project as part of an effort to addresses the integration of the Fuel Cell subsystem with the bottoming turbine plant.

Several activities have permitted utilities to guide Ztek's fuel cell development in line with industry requirements, as well as have access to planning information and host test sites. The formation of the **Ztek Utility Consortium** , chaired by the Tennessee Valley Authority, provides for active dialogue among the utility members. Moreover, it helps Ztek to maintain current information in areas of common interest.

The Consortium includes five charter-member utility companies, ten regular members, and additional companies currently in the process of joining. Member participation includes hosting demonstrations of prototype power generation units, sponsoring development efforts, and performing special studies utilizing industry knowledge and available internal resources in engineering, distribution, and marketing.

DOE TECHNOLOGY SELECTION

In 1993, Ztek responded to a DOE solicitation PRDA DE-RA21-93MC30073 on Advanced Solid Oxide Fuel Cell (SOFC) Development, and was selected to receive an award. Funding for this program was contained in Interior Appropriations Bill HR 4602. Subsequently through Ztek's communication, DOE recognized that Ztek's proposal on **Fuel Cell Turbo Power System applying its ATI® Planar Solid Oxide Fuel Cell** has the potential to revolutionize the power generation industry, and has an overwhelming benefit in advancing power technology. The positive impact of this program on a majority of DOE fossil energy programs, including the Advanced Turbine System (ATS) Program and the Integrated Gasification Combined Cycle (IGCC) Program , will result in major development cost reduction and fast technology convergence. Overall resource savings could amount to billions of dollars.

SUMMARY

We believe that **Fuel Cell Turbo Power System** technology, with highly coordinated integration, represents a significant breakthrough and a promising opportunity for the U.S. to achieve competitive fuel cell power systems.

Independently, Ztek has continued to make major strides in advancing ATI® Planar Solid Oxide Fuel Cell development towards commercialization. This has been achieved with the support of major utility companies in the U.S. who are eager to pursue this technology and achieve its energy efficiency and environmental benefits. This advanced technology achievement is the result of less than $5 million in development funding, compared to $50 million typically applied to other efforts. This important industry commitment, with extended support from the Department of Energy, will facilitate achieving the potential of this Fuel Cell Turbo Power System technology.

By 1998 we expect to have a working prototype of a Fuel Cell Turbo Power System, which is suitable for scale up to multi-megawatt commercial power generation plants. The support of EPRI, TVA, and other utilities is significant as it demonstrates industry acceptance and belief in the benefits offered by the technology. DOE support in the form of a Cost Shared Cooperative Agreement, will accelerate the development of this cost-effective technology, achieve timely benefits for the nation, and add value to the overall DOE fuel cell programs. This program is the most cost-effective option and should be included as a high-priority item.

I would be pleased to provide answer to any additional questions you may have and thank you for your time and attention.

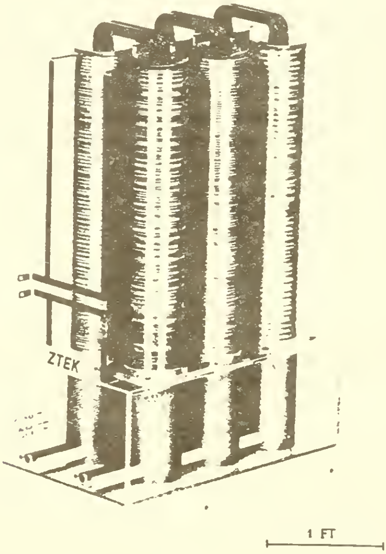

FIGURE 1 UTILITY MODULE DEMONSTRATION UNIT
ATI® PLANAR SOLID OXIDE FUEL CELL

FRIDAY, MARCH 24, 1995.

DOE: ENERGY EFFICIENCY

WITNESS

MICHAEL DICKENS, PRESIDENT, INTEGRATED BUILDING AND CONSTRUCTION SOLUTIONS

Mr. REGULA. Integrated Building and Construction Solutions. Good morning. Thank you for coming.

Mr. DICKENS. Hello, sir. No problem. My name is Michael Dickens. I am the president of IBACS, which as you said stands for Integrated Building and Construction Solutions. It is a private consortium. I have been with General Electric for seven years. We hold carrier U.S. chips, architectural engineer and business, several groups together to look at the house or housing as an integrated element.

I am here today to support DOE's energy efficiency drive, because there is a tremendous need to build better homes. Builders do their best, but they are a far cry from producing good quality energy efficient homes. Builders are a very fragmented bunch, whichever way you look at it.

Mr. REGULA. Well, you heard the previous testimony. I guess you would concur in that.

Mr. DICKENS. More than concur. I am an industrial designer, a car designer by training, and joined General Electric to look at housing, and concluded after three years in 1990 the only way we will truly create better homes is in an integrated fashion, where you look at the way walls, floors, electrical, HVAC works.

Mr. REGULA. You are a private consulting firm. What do you do and how do you fit into the DOE role?

Mr. DICKENS. We are the lead alliance for DOE in their Building America Program, and we have a 2.5 funds from us to one of DOE sponsorship. We are in the middle of a three-year contract.

Mr. REGULA. So DOE contracts with you to develop these energy efficiency techniques?

Mr. DICKENS. We have put the innovative systems and prototypes together. We built two lab homes. Now we have been working with 10 of the Nation's top builders to take them into the real world.

Mr. REGULA. Do they contribute money, too?

Mr. DICKENS. The builders support with time; the manufacturers, the finance. And we have an innovation center in Pittsburgh.

Mr. REGULA. What percent of your total budget is Federal?

Mr. DICKENS. About 35 percent.

Mr. REGULA. And the balance comes from various sources in the private sector?

Mr. DICKENS. Manufacturers, yes. And I started the program in 1991 in essence with DOE and in the last Republican group, because I believe there is a desperate need to help builders. You think manufacturers can do it. In fact, they can't. They are so busy developing their widget, their window or their floor panel, they are not looking at the house as a total entity. No one is. And we believe that if we all work together and share costs and teach builders, then we will——

Mr. REGULA. So you would do technology for industrial buildings also?

Mr. DICKENS. Not at the moment.

Mr. REGULA. Mostly home building.

Mr. DICKENS. Mostly residential, new construction.

Mr. REGULA. Your feeling is this program will result in the construction of more energy efficient homes, which would meet the goal of reducing our energy consumption.

Mr. DICKENS. Absolutely. We call them EETQAER homes—energy efficient, top quality, affordable, environmentally responsive.

Mr. REGULA. Does this add much to the cost of the home if you do it from the ground up?

Mr. DICKENS. It can't. Today the two lab homes and the ten leading builders we are working with, we are still about 10 percent out on costs. But ultimately——

Mr. REGULA. Above or below?

Mr. DICKENS. Above.

Mr. REGULA. But don't you get it back in your heating bills, et cetera?

Mr. DICKENS. You do, but selling that as a builder to the homeowner is a monster. We have spent too many years selling energy efficiency instead of comfort and lower operating costs. So our programs and the programs at NAHB really assure the builder that they can sell it on, but they are not there yet. They will be in a year or two.

So we are in the middle of a three-year program. I think it will be a crime if you don't keep helping Department of Energy support manufacturers and builders. Because ultimately it is your home and your child's home that is really——

Mr. REGULA. I guess part of it is to sell people, sell the consumer and the fact that they pay a premium, but get their investment back in comfort.

Mr. DICKENS. I don't think you can charge a premium. Affordable is such a critical issue.

Mr. REGULA. So that is still part of your mission, is to get these techniques to the point where a home, an energy efficient house, will be the same price as one that is not.

Mr. DICKENS. Yes. But it is higher performance, improves—supports your living lifestyle as you get more and more complicated.

Our biggest goal in the next two years, we are going to produce a community of 25 to 50 homes in Pittsburgh on top of 2,000 homes with builders in the U.S.A. in the next two years. So the climax of the three-year program will be this community will really show builders, architects, codes, consumers.

Mr. REGULA. It will be a model demonstration.

Mr. DICKENS. You are not far from Pittsburgh. We will take you through it.

Mr. REGULA. Thank you very much. Sounds like an exciting idea.

Mr. DICKENS. This is for your drive home.

Mr. REGULA. I've got to watch the road.

[The information follows:]

IBACOS

Testimony of Michael Dickens before the
Subcommittee on Interior & Related Agencies
Committee on Appropriations
March 25, 1995

Good Morning, my name is Michael Dickens. I am President of Integrated Building and Construction Solutions, or IBACOS. I am here today to express my support for continued funding for residential energy efficiency research & development at the U.S Department of Energy. Residential energy use comprises almost 20% of our nation's primary energy use - efforts led by DOE to increase efficiency in this area have one of the most immediate and substantial impacts on reducing energy use. DOE is using a cooperative approach with the home building industry where DOE funds initial research, and industry funds the application and market implementation of that research. This approach effectively maximizes DOE and industry resources so that more direct benefits to the consumer are realized than if each were acting separately.

I would like to offer both some examples of successful advances in building technology that have been fostered by Federal support, and why continued support can bring returns from tax dollars invested. This is especially important in today's climate of fiscal responsibility.

The home building industry is one of the leading indicators of the nation's economy. Its well-being is critical to maintaining our confidence in the national and global economy. It is a very diverse, fragmented industry comprised over 130,000 organizations, of which most are small building companies, that ultimately must provide affordable products for the consumer. An ever-fluctuating market, layoffs, and fierce competition often precludes both large and small builders from making investments in energy efficiency research in order to keep their costs at a minimum. There is also little incentive for the individual builder to invest in energy efficiency research. Home building requires an integrated effort among builders, component manufacturers and suppliers; such an environment makes it very difficult for one company involved in one facet of the industry to introduce a new technology or product into the process. It requires a very coordinated effort to make any impact. The building industry is a classic example of where consolidating resources can benefit an entire industry - and ultimately, the homeowner. IBACOS fills the role of a leader in research of building design and construction processes that can be applied by the industry as a whole.

IBACOS is a unique research and development organization that harnesses the best of today's manufacturing and energy technology into a coherent new approach to home construction. It is funded and supported by some of the leading companies in the housing industry: GE Plastics, a world leader in engineering thermoplastics; Burt Hill Kosar Rittelmann Associates of Pittsburgh, PA, an architectural and engineering firm with broad experience in architectural building and energy systems; Masco Corporation of Detroit, MI, a multi-faceted

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company specializing in kitchen, bath and furniture systems; USG Corporation of Chicago, IL, a world-wide manufacturer of engineered gypsum materials and building products; Molex of Lisle, IL, a global Fortune 500 manufacturer of electronic, electrical, and fiberoptic interconnection systems; and GE Appliances, a leading global manufacturer and marketer of major kitchen, laundry, and room air appliances. IBACOS also works with a Building Council that is comprised of builders from all over the country and range from small companies that build 20 homes per year to large companies that build over 9000 homes a year. This council provides added expertise, and a "real world" perspective to our efforts. All of IBACOS's partner companies joined in this effort and continue to play a key role within it, due considerably to the participation of the Department of Energy. To them, DOE support affirms the idea that IBACOS represents the interests of the entire home building community and the homeowner, and provides the continuity needed to pursue the long term vision of DOE, IBACOS and each partner involved.

IBACOS brings a new vision to home-building: To bring tangible value to both home owners and builders - to build quality homes, and provide a more sustainable approach to the building process itself. At our Innovation Center in Pittsburgh, PA, a multi-disciplinary team of engineers, architects, industrial designers and builders explores and integrates building systems, and establishes design guidelines for bringing them together. With DOE, IBACOS developed the concept of 'EQA' - homes that are energy efficient, environmentally responsive, high quality, quick to build, affordable and adaptable. With its partners, IBACOS has already built test & demonstration homes. The lessons learned will help more builders create 'EQA' communities.

I would like to review some of the successes of DOE's partnership with IBACOS. These programs would not have been possible without the partnership structure that DOE has developed with private industry. By sharing costs, important research and development can be conducted, and with additional funds from the private sector, it is possible to carry that research further into the testing and market introduction stages. The concept of shared costs helps break down the barriers to innovation, brings new technology to market, permanently, at a faster rate than individual efforts on the part of DOE or private industry alone.

DOE and IBACOS can boast a number of innovations that already affect builder approaches to home building. Our Innovation Center features a "Technology Classroom" that has full size residential structures that are used in a workshop atmosphere to introduce new innovations and techniques to builders, trades contractors and suppliers. At the Innovation Center, IBACOS researchers have developed a number of home-building concepts:

Disentangling: Separating the structural "shell" of the house from its "infill" of interior and service systems. The result is a home that is quicker to build, easier to maintain, and more readily adapted to future needs.

Core Systems: Creating a system of engineered components for use in both new construction and in remodeling. These components include the shell, interior partitioning, distribution path, plumbing, electric distribution, space conditioning, indoor air quality, and kitchen and bath components.

Systems Integration: Developing and merging the various product and process systems into an efficient and productive whole, utilizing the latest information technologies.

These concepts and others developed with DOE support have already been tested in projects funded by our member companies. Two "lab homes" located in the Pittsburgh area continue to be invaluable resources. After two seasons of performance analysis by the National Renewable Energy Laboratory and Burt Hill, results showed that applied IBACOS concepts can dramatically reduce building thermal loss, and lower energy use and operating costs for the homeowner in the long term.

An application project with Pulte Homes-Las Vegas, a national builder of over 10,000 homes annually, offered the opportunity to begin to transfer IBACOS approaches to leading builders. Sessions with Pulte's subcontractors, designers, site supervisors, construction managers and local code officials highlighted a series of opportunities for improving performance, comfort and energy efficiency. Presentations to Chairman Bill Pulte and other regional and division teams led to much enthusiasm and the adoption of our approach. Pulte decided to fully implement our research, evaluation and technology applications in a development project in 1995 of over 100 homes in North Las Vegas. A national strategic alliance with Pulte has been established to further drive the development of the applied design and engineering processes into other regions of the country.

IBACOS is also working with RecreActions Group of Companies (RGC), one of the nation's leading market-driven companies in Rancho Santa Margarita, California. IBACOS will provide Core Systems designs, and evaluate realistic Disentangling solutions in over 225 homes beginning in 1995 alone. The current IBACOS strategy also includes plans for another ten joint development programs in 1995 with builders at the national level.

Building on experiences gained during the construction of the lab homes and the on-going programs with leading builders on elements of the 'EQA' approach, IBACOS has begun planning the construction of a total 'EQA' Community of approximately 25-50 homes in the Pittsburgh area, slated for completion in 1996. This 'EQA' Community will serve as a testing ground for the overall EQA approach using management tools, product packages, core 'EQA' technologies, training procedures, sales and marketing programs, and market delivery.

It is important to note that the implementation and construction costs of these projects that I have just described are **not** funded through the Department of Energy. Building and marketing costs are shared by our member companies and various builder partners. No Federal dollars go to any of our industry partners for project implementation or company operations; IBACOS has diversified its funding among those entities that would benefit from this type of comprehensive approach. We currently receive about two and a half dollars of private funds for every dollar of Federal funds we receive. Though that number may fluctuate as research and application needs develop and change, the gains that we have made toward DOE's and our goal of lowering both builder and homeowner costs have far exceeded what individual efforts could do.

Do I see the eventual sunsetting of Federal assistance? IBACOS is a performance driven program, and receives funding from the Department of Energy in a contractual manner that requires us to meet specified deliverables and goals. That funding would be phased out as those goals are met. We are currently in the second year of an initial three year project with DOE. The next phase of DOE's program goals involves a full integration of the house shell and infill concepts currently under development - after this stage, the full realization of DOE investments will truly be met. IBACOS is well qualified to work with DOE to meet these goals and looks forward to furthering the partnership structure created under DOE's Build America Program.

Continued support and assistance from the Department of Energy is vital. The industry is at a critical juncture ready to assimilate new approaches into the building process. As I mentioned earlier, the concept of shared support with private industry provides the opportunity for DOE to develop new technologies, and immediately measure its application.

Many times the government sets mandates in order to achieve a policy goal, with little regard for its effect on industry operations. We applaud Congress' desire to minimize these regulatory burdens; this can compromise an industry's flexibility to use the best approach to meet those national goals. Since the intent here is to improve efficiency in both the home building as process well as the home itself, partnership programs developed by DOE can help to avoid the restrictive regulatory directives by employing the most productive methods to improving energy efficiency and forwarding the benefits quickly to the homeowner.

The Department of Energy has begun programs within the Office of Energy Efficiency and Renewable Energy that are based on the concept of shared cost. By coordinating research with industry application, the programs addressing residential energy efficiency use limited funds in the most cost effective manner to advance energy efficiency. With a relatively small investment of funds, DOE can conduct research, leverage the investments in the National Labs, and transfer the cost of demonstration and application to industry. The building industry has proven, through our unique alliance, that it is willing to share in the costs of technology innovation in the interest of permanently changing building methods, and raising the quality of its overall product - homes and communities.

The ultimate winner of this program is the consumer. As these innovative approaches are adopted by the homebuilding industry, consumers will be able to live in homes that are more efficient, environmentally sound, of better quality, more affordable and more adaptable to changing lifestyles. In short, consumers will have homes they can live with, not merely within.

I appreciate this opportunity to speak on behalf of IBACOS and the residential energy efficiency programs of the Department of Energy. I will be happy to answer any questions you may have.

FRIDAY, MARCH 24, 1995.

U.S. GEOLOGICAL SURVEY: SURFACE WATER DATA COLLECTION AND ANALYSIS

WITNESS

CHARLES PARTHUM, PRESIDENT-ELECT, AMERICAN SOCIETY OF CIVIL ENGINEERS

Mr. REGULA. Okay. American Society of Civil Engineers on behalf of USGS.

Mr. PARTHUM. Good morning, Mr. Chairman.

Mr. REGULA. Thanks for coming.

Mr. PARTHUM. My name is Charles Parthum. I am president-elect of the American Society of Civil Engineers, the country's oldest national engineering society, which was formed almost 150 years ago. I am here today representing over 115,000 members of ASCE, but also over a million other members of associated engineering organizations.

Mr. Chairman, ASCE supports the efforts of the congressional leadership to control Federal spending and to rein in the deficit. Moreover, many of our members, including a large number working in the private sector, certainly support the key thrusts of the Contract With America.

However, that the U.S. Geological Survey could be abolished, as some in this town have suggested, makes no sense from an engineering or a public policy or a safety perspective. We are professionals deeply concerned about the environmental well-being of the United States and firmly believe that the USGS basic water quantity and quality data collection activities are, number one, essential because the value of hydrologic data increases with both the length and the continuity of the record, and two, the logical responsibility of the Federal Government because of interstate and the public nature of this essential component of our environment. In other words, this data collection transcends State boundaries.

Because of the critical nature of these data and the importance in infrastructure and environmental planning, we urge the Congress to approve the administration's proposed increase from USGS surface water data collection of $2.3 million in the Federal State cooperative program, to a level of $64 million.

Mr. Chairman, in addition to my responsibilities with ASCE, I am a consultant and past director of Camp, Jursom, McKee, a worldwide environmental engineering consulting firm with 2,200 employees, over 80 U.S. offices. I have been with them for 43 years. As a civil engineer who has worked for many years on a wide range of projects, I fully understand and have used water quality and quantity data and flood elevations.

This data, if not collected in real time, are lost forever. And the resultant impact of not having the data will be poor planning, poor design, and much greater construction and operating costs in the future.

Mr. Chairman, public concern about unusual U.S. weather patterns, including the great flood of 1993, and what is going on now in California, further underscores the importance of maintaining strong Federal support for the USGS basic water data quality programs.

I call your attention to a Washington Post picture of March 14th, which indicates a bridge span that was failed in California. The point I wish to make is that properly designing a bridge over a waterway, an engineer needs access to the most best possible long-term and real-time information on flood elevations, intensity and duration.

Further, the data collection program is vital to the proper execution of engineering required under the Clean Waters Act, the Water Resources Development Act, State Drinking Water Act. The efficient annual expenditure of billions of dollars also involves significant Federal environmental mandates for State and local——

Mr. REGULA. We have about a minute left. I would like to ask you, do you feel that we should perhaps increase some of the charges for the services that USGS provides?

Mr. PARTHUM. Well, if it is increased, certainly our clients and the States would pay for it. It would have to come from somewhere, certainly. And some of the government agencies also use that information, which of course you wouldn't bill them for.

Mr. REGULA. Well, either that or have an interdepartmental transfer. They sell their maps, for example, for a dollar and a half and commercial firms buy them and resell them for $4 or $5 or more. And it would seem to me that that benefit should accrue to the taxpayer, rather than the private sector. Would you agree with that?

Mr. PARTHUM. I do. I don't know whether the United States Government would be able to set up that sort of an arrangement, so you have to buy it directly from the USGS.

Mr. REGULA. But you strongly endorse the services they provide?

Mr. PARTHUM. Yes, sir.

Mr. REGULA. Both to the public and private entities?

Mr. PARTHUM. Yes, sir, we do, yes. I think it is essential to the rest of the country.

Mr. REGULA. That is a very key issue. I hope that you will carry that message to any others that you know. Because the impetus to abolish the USGS is not coming out of this committee.

Mr. PARTHUM. I understand.

Mr. REGULA. So if you are aware of others who have a question, maybe some of the Budget Committee members, for example, I would suggest you communicate to them.

Mr. PARTHUM. We certainly are. We have almost 10,000 members that do that.

Mr. REGULA. Get them energized. Nothing beats grass roots, I can tell you.

Mr. PARTHUM. We have done that in the past and continue to do that.

Mr. REGULA. And I think especially in this climate, people need to know what has value to society.

Mr. PARTHUM. Yes, sir.

Mr. REGULA. Thank you very much for coming.

Mr. PARTHUM. Thank you very much.

[The information follows:]

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TESTIMONY OF

CHARLES A. PARTHUM, P.E.

PRESIDENT-ELECT
AMERICAN SOCIETY OF CIVIL ENGINEERS

ENDORSED BY THE

AMERICAN ACADEMY OF ENVIRONMENTAL ENGINEERS
AMERICAN ASSOCIATION OF ENGINEERING SOCIETIES'
Engineers' Public Policy Council
AMERICAN CONSULTING ENGINEERS COUNCIL
AMERICAN WATER WORKS ASSOCIATION
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
WATER ENVIRONMENT FEDERATION

ON THE

U.S. GEOLOGICAL SURVEY

FISCAL YEAR 1996 BUDGET REQUEST

BEFORE THE

SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

COMMITTEE ON APPROPRIATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

MARCH 24, 1995

Good morning, Mr. Chairman and members of the Committee. I am Charles A. Parthum, President-elect of the American Society of Civil Engineers.

On behalf of the more than 115,000 members of The American Society of Civil Engineers (ASCE) I strongly urge Congress to approve the proposed FY 1996 funding increase for the U.S. Geological Survey's (USGS) surface water data collection and analysis activities. ASCE's position is endorsed by over 1 million engineers represented by the American Academy of Environmental Engineers, Engineers' Public Policy Council of the American Association of Engineering Societies, American Consulting Engineers Council, American Water Works Association, National Society of Professional Engineers and the Water Environment Federation.

The Administration has proposed a budget of $190.469 million for the USGS' Water Resources Investigations (WRI) function, an increase of $3.589 million (2%) over FY 1995. Within the WRI budget, the National Water Resources Research & Information System-Federal Program would rise $6.522 million (5.46%) to $125.991 million, mostly to pay for increased activity in the National Water Quality Assessment Program. The National Water Resources Research and Information System-Federal/State Cooperative Program would rise $2.348 million (3.78%) to $64.478 million in FY 1996. These proposed increases in the Cooperative and Federal Programs will help to offset some of the ill-advised cuts that have occurred since the early 1980s. Cuts in these programs would limit the nation's future ability to manage its precious water resources.

The cost of collecting water data is not great, but the impact of such data is immense and far-reaching. These data are critical to a wide range of activities, including: reservoir operation; water quality and supply studies; water law court decisions; wastewater treatment discharges into streams; drainage structures for highways, bridges and culverts; flood insurance and management studies; detention pond studies for urban runoff control; planning and design of hydroelectric projects; water basin planning and investigation; forensic analysis; environmental impact analysis; and ice forecasting, jam and control studies.

The need for complete basic water data is essential to proper engineering design. How can engineers devise optimum responses, and design the most cost-effective facilities, if they have incomplete and inadequate hydrologic data? The federal cost of basic water data collection and analysis pales when compared to the cost of facilities which will be based on inadequate data, as well as to the potential loss of life and property that can occur if errors in design result from use of a faulty data base. The unusual weather patterns experienced by much of the nation in recent years underscore the importance of maintaining uninterrupted records. We simply must have perpetually accurate data to engineer projects and allocate water.

Capturing data from extreme events, like the Great Flood of 1993 in the Midwest, or the recent floods in California, is vital to civil engineers.

Moreover, the National Weather Service (NWS) uses data from 3,000 USGS streamflow stations to forecast river stages and flow conditions on major rivers and smaller streams in urban areas. The USGS coordinates the collection of streamflow and related data with the 13 NWS River Forecast Offices and ensures the availability of data at all times, but particularly during flood emergencies.

Unfortunately the total number of continuous streamflow recording stations has gradually fallen since 1980. From 1990 to 1993 the number fell from 7590 to 7348. A graph based on USGS information which reflects this downward trend is attached to my testimony.

The U.S. Geological Survey has used cost sharing arrangements with non-federal agencies to stretch further the federal funds appropriated for water resources data collection. Whereas we believe complete federal funding is the best way to ensure continuity of data collection over multi-decade time periods, cost sharing is a feasible and attractive alternative to reduced data collection. It should be noted, however, that in recent years, the states have been willing to spend considerably more than the federal government in the Cooperative Program for water data collection and analysis. This disturbing trend appears to be accelerating. In FY 1993 $20 million in state offerings went unmatched by the federal government. In FY 1994 the gap jumped to $27.5 million.

In the current fiscal year, FY 1995, state and local cooperators have been willing to spend $90.7 million in the Federal/State Cooperative Program. The federal government, on the other hand, despite this obvious sign of states scrambling to cope with unfunded environmental mandates, has only committed to spend $62.1 million in the Cooperative Program, leaving the states with a hefty $28.6 million gap. We respectfully recommend that the federal government be a fully cooperating partner in the Cooperative Program by matching the states' offering every year. The federal match slipped to 68% of the states' offerings in FY 1995, down from 91% in FY 1988. We, of course, realize that in the current budget climate it may be unrealistic to expect the federal government to fully match the states' offerings in the Cooperative Program. However, the point should be noted that the federal government is failing to honor its end of the deal. At the very least, the Administration's $64.478 million request should be approved.

We believe that the USGS basic water quantity data collection activities are:

1) essential, because the value of hydrologic data increases with both the length and continuity of the record;
2) the logical responsibility of the federal government because

the states cannot possibly assume the support and leadership role of USGS for interstate water systems; and

3) cost-effective, because coordinated water data collection eliminates overlapping and duplicative efforts.

Data analyses as well as research and development of new predictive techniques can be accomplished by innumerable public or private water-resource agencies, as the need arises, if the long-term basic data exists. If the data is lacking no one, including the USGS, can manufacture it. Accordingly, this activity must be one of USGS' highest priorities.

The efficient annual expenditure of billions of dollars under the Clean Water Act, the Water Resources Development Act and the Safe Drinking Water Act depends on adequate basic water data collection.

AMERICAN SOCIETY OF CIVIL ENGINEERS

The American Society of Civil Engineers (ASCE), founded in 1852, is the oldest national engineering society in the United States. Membership, held by more than 115,000 individual professional engineers, is about equally divided among engineers in private practice; engineers working for federal, state or local governments; and those employed in research and academia. The Society's major goals are to develop engineers who will improve technology and apply it to further the objectives of society as a whole, to promote the dedication and technical capability of its members and to advance the profession of civil engineering.

AMERICAN ACADEMY OF ENVIRONMENTAL ENGINEERS

Since 1955, the American Academy of Environmental Engineers (AAEE) has dedicated its efforts to improving the practice and elevating the standards of environmental engineering practice. All its members have proven their special expertise in environmental engineering specialties through examination and peer-review. They are leaders in business, government, private practice and academia directing thousands of engineers and allied professionals to protect public health and safety and the environment.

AMERICAN ASSOCIATION OF ENGINEERING SOCIETIES'
ENGINEERS' PUBLIC POLICY COUNCIL

The American Association of Engineering Societies (AAES) is a multi-disciplinary organization dedicated to advancing the knowledge, understanding and the practice of engineering in the public interest. Located in Washington, DC, AAES includes 13 member societies, 6 associate societies and 3 regional societies representing over 800,000 engineers in industry, government and education.

AMERICAN CONSULTING ENGINEERS COUNCIL

The American Consulting Engineers Council (ACEC), a federation of state and regional councils, is the largest national organization of independent consulting engineering firms. ACEC's more than 5,000 member firms represent almost 200,000 employees who annually design over $100 billion in constructed public works and private industry projects. Member firms offer a wide variety of professional engineering services including civil, electrical, mechanical, structural, environmental, geotechnical, metallurgical, chemical, acoustical, industrial, mining and agricultural. Eighty percent of ACEC members are small businesses.

AMERICAN WATER WORKS ASSOCIATION

The American Water Works Association (AWWA) is a 114 year old scientific and educational association, which is the largest association of drinking water professionals in the world. AWWA has over 55,000 members which includes utility operators, engineers, scientists, professors, health regulators, environmentalists and many other people that have a genuine interest in drinking water. AWWA's membership includes 3,200 utilities which supply 75% of the nation's drinking water.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

The National Society of Professional Engineers (NSPE), is a professional society representing 70,000 engineers of all disciplines nationwide. The members are organized into 52 state and territorial societies and 500 local chapters and work in industry, education, private practice, construction and government.

WATER ENVIRONMENT FEDERATION

The Water Environment Federation (WEF), is an international not-for-profit educational and technical organization of 40,000 water quality experts. Members include environmental, civil and chemical engineers, biologists, chemist, government officials, students, treatment plant managers and operators, laboratory analysts, and equipment manufacturers and distributors. WEF's mission is to preserve and enhance the global water environment.

Mr. Chairman, this concludes my testimony. I would be happy to respond to any questions.

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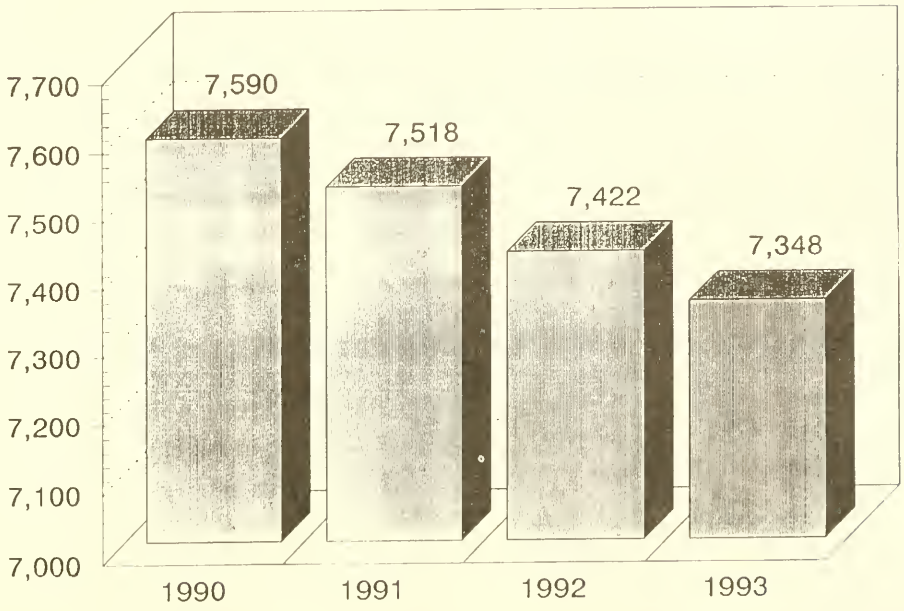

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: COST SHARED R&D PROGRAMS

WITNESS

JOHN D. OLESON, DIRECTOR OF MANUFACTURING TECHNOLOGY, DOW CORNING

Mr. REGULA. Dow Corning.

Mr. OLESON. My name is John Oleson. I am the director of technology at Dow Corning Corporation.

Mr. REGULA. Dow started in Navarre and moved to Michigan. Navarre lost, but Navarre is my home town. There are still 1,500 people there because Dow didn't stay. There is something to be said for that, too. Go ahead.

Mr. OLESON. Dow Corning supports the government downsizing by eliminating of activities and improving effectiveness. I am here to ask for a consideration on the R&D partnering with industry that is good for the Nation. The partnering should allow industrial consortiums to form and in my industry, the chemical industry, that is very, very difficult to do. It should catalyze industrial investment. It adds credibility and validation to technical trust of the industry.

Now, that may be a surprise to you, but that truly does happen, but the DOE and others, they validate much of what high-risk stuff we are going to do. Specifically, I am talking about the DOE's Office of Oil and Gas and the industrial technology activity. And I would like to give you a little example that happened that not many people know about. Back in the days of photovoltaic and solar storage research, an effort was made to essentially change the technology that was there. Our corporation participated in that technology, and we were able to cut the cost of producing silicon for the electronic industry in half due to that effort. We became the No. 1 largest producer in the world at a time when the industry was essentially going to shut down in the U.S.

There were three companies that were involved in that particular thing, and all three have operations going on productively in the United States of America, probably employing some 2,000 people.

Mr. REGULA. You are saying government made that happen?

Mr. OLESON. Government put in $1 million early in the game to our company. We invested $70 million and now are investing $140 million based on that technology developed with that $1 million investment through a R&D demonstration activity of the government.

Mr. REGULA. I think you are saying government ought to be on the cutting edge of these things and then once it gets close to marketplace, back out?

Mr. OLESON. In our case, the example is that we had to influence, in a dying industry, internal do you Corning people to the effect that this is a good thing to do and it is good for the Nation and it is something that they should prioritize. That million dollars allowed that to happen, allowed the technology to develop and essentially saved that particular industry.

We have two examples now in the paper that—of the same thing, and one is the production of methochloride from natural gas, and that is a—methochloride is the key ingredient for our silicon industry and we anticipate that, getting through the early phases of that project, getting a couple million dollars from the government to essentially balance the negative effects that occur when you are trying to do something that is risky and far out, that that will result in——

Mr. REGULA. Do you believe in a 50/50 match?

Mr. OLESON. We always do. In fact, we will end up putting in $50 million here based on the $1 million that the government gives us through that phase. But even during that phase, it is a match, match all the way.

The second one ends up being a change, and a little longer term, that is the change of some 640 million pounds of a waste product in about the year 2000 to useful products and that is a basic research activity going on right now and we are looking for a government project on that particular thing.

We are very much interested in making sure that the DOE is allowed to continue the partnering activity that it has, that it is a critical element. It gets us the seed money. It gets us the catalytic effect and it gets us the ability to move to the future.

Mr. REGULA. Thank you very much.

Mr. OLESON. Thank you.

Mr. REGULA. I like that approach.

Mr. OLESON. And good luck with your reduction of the government here.

Mr. REGULA. We will need lots of that.

[The statement of Mr. Oleson follows:]

Statement of Mr. John D. Oleson
Director of Manufacturing Technology
Dow Corning Corporation, Midland, Michigan

Committee on Appropriations
Subcommittee on the Interior
U.S. House of Representatives
March 24, 1995

Thank you, Mr. Chairman and members of the committee, for the opportunity to present my remarks before your subcommittee. My name is John Oleson and I am the Director of Technology for Dow Corning Corporation, a global supplier of silicones and silicon related materials. The national debt and tax burden need to be reduced significantly. As the Congress addresses this issue, I want to provide information I hope is useful for this task, especially as you address a portion of the Department of Energy budget.

Downsizing federal government is, perhaps an unprecedented task and can best be accomplished by using a scalpel rather than an ax. The scalpel may produce greater consensus while optimizing tax savings. However, the scalpel requires examination beyond generalities and requires some level of detailed evaluation. Recent U.S. industry restructuring has created some models which could be used by government. Identifying, prioritizing, consolidating, and preserving core competency, while leveraging resources through partnering are activities that U.S. industry has adopted to be internationally competitive.

Over 95% of U.S. industry serves commercial applications. Unlike defense suppliers who receive R&D support from DOD, commercial companies' only high risk project support has come from other government agencies, usually DOE or DOC. Any restructuring needs to provide support for high risk technical activity in the non defense industrial sector.

Demonstration is the critical commercialization phase where science is transformed into technology and a full assessment of benefits can be measured. It also has the highest risk since it is generally the first evaluation made for the commercial viability of a process. It includes evaluation of costs and process efficiency, and is normally performed on large scale expensive equipment. I am here to urge your continued funding and support for demonstration projects in general and specifically for Research and Development projects in the U.S. Department of Energy's Offices of Oil and Gas and Industrial Technologies. I would like to discuss specific examples which will illustrate how government funding of industrial research and technology development is important to our common interests.

1. The U.S. Polycrystalline Silicon Industry.

Polycrystalline silicon is the starting material for silicon wafers, chips, and electronic devices. It is a key element of the electronic industry's extended supply chain. Fifteen years ago this pure element was manufactured by an inefficient process based on

German technology. At this time the government was funding projects for alternative sources of energy and photovoltaic energy was a key technology. Solar silicon was the prime focus but the technology developed had significant impact in the extended electronic supply train. Three industrial based projects were initiated.

Union Carbide developed a process to convert trichlorosilane to silane (SiH4) which was converted to polycrystalline silicon. A manufacturing plant based on this technology was constructed and operated in Moses Lake, Washington. This is a commercial success and is now owned by Komatsu.

Ethyl Corporation developed a process based on silane produced from a fertilizer industry by-product, fluorosilicic acid. The fluorine was removed and captured by sodium and aluminum and used as a flux in the aluminum industry. The silane was decomposed to polycrystalline silicon powder in a fluid bed reactor. This commercial process is operated in the Houston area.

Dow Corning was operating a polycrystalline silicon process based on the old German technology. We received about $ 1 million of DoE support to develop a process based on the conversion of dichlorosilane to polycrystalline silicon. Federal funding reduced risk to a level that saved this project by allowing it to compete favorably against other Dow Corning internal projects. At the time the profitability of polycrystalline silicon was poor with high swings in demand that were unpredictable. Dow Corning's process was based on chemical vapor deposition of trichlorosilane. Government R&D funding and significant capital investments by Dow Corning resulted in the worlds largest and most efficient polycrystalline silicon plant located in Hemlock, Michigan. Hemlock Semiconductor, the operating company, is owned by Dow Corning and two key customers. The plant has recently doubled capacity and another expansion is being planned. It is a commercial success with the new technology reducing polycrystalline silicon's manufacturing cost by approximately 50 percent. Others, including firms in the U.S., Germany and Japan, are trying to match this cost improvement. This is a prime example how federal funding reduced research risk and simulated capital investment on new technology that kept a U.S. industry competitive in global markets while saving domestic jobs.

2. Current Cost Shared R&D Projects .

Dow Corning is currently involved in two cost shared projects that are funded through the Department of Energy. We have been developing a new commercial route to methylchloride which is a key raw material for the production of silicones. This project is cost shared under the Gas to Liquids Program which is managed by PETC for the Office of Oil and Gas Research in Fossil Energy. The fundamental process knowledge being developed can also be applied to converting methane to gasoline and production of other value added materials. We believe this technology has the potential for saving about $100 million/year in the silicone industry and similar savings in other industries if we are successful. We anticipate completing Phase I of the project in 1996. We are requesting you budget $2 million/year for the next five years so Dow Corning can complete Phase II of this project under a 50% cost share agreement with DoE. Partnering with government is appropriate for this demonstration project because of the broad based benefits associated with technology commercialization and the risks associated with technology development.

Dow Corning is also working on a waste reduction process aimed at improving our global competitiveness and saving energy. This project is sponsored by DoE's Office of Industrial Technology. We are performing the work under a cooperative agreement and estimate that DoE will cost share about $1.7 million out of a total cost of about $22.2 million over three phases and 5 years. We expect this technology will save about 3 trillion BTUs and reduce waste by about 640 million pounds annually if fully implemented by 2010. This novel process will combine two waste streams and processes them to valuable intermediates for the production of silicone. We urge you to continue your support to the Office of Industrial Technology which is targeting energy and waste reduction as a route to domestic competitiveness. We endorse OIT's strategy of demonstrating the conversion of waste to useful feedstocks and products.

3. Cooperative R&D Agreements with National Labs.

Dow Corning is partnering with the government through the CRADA process. We have five agreements with four different labs that are transferring technology and capabilities. The National Laboratory System is a unique national resource with a vast pool of scientific expertise. They often have solutions looking for problems and there is need to match the problems faced by industry to the capabilities within the lab system. The Roof Research Center in Oak Ridge, Tennessee is nearing completion of a CRADA with Dow Corning that demonstrates significant energy savings and a favorable savings to investment ratio when a well characterized building was reroofed with a silicone-polyurethane roofing system. The study, which was based on sound scientific principles and measurements, showed good correlation between the field study, climate simulator studies, and computer modeling. We anticipate this study will pave the way for more cost effect roof recovering while saving energy, reducing construction waste, and providing customized criteria for retrofitting roofs in different climates where heating and cooling requirements are different. This is an example how government and industry can work together to the benefit of the customers we all serve. Dow Corning provided the roofing system for this study, but the unique facility at ORNL's Roof Research Center made this project possible.

These specific examples have some key characteristics that made the Federal funding very effective. I would like to summarize several observations.

1. Government partnered with industry to mitigate the demonstration risk associated with change in some key technology areas. These projects would not have progressed as rapidly without partnering between industry and government.

2. Government recognized industry as the source of the science, knowledge, new technology, and the place where commercial reality will occur.

3. Industry recognized government's technical assessment and direction as a valuable input to a focused consensus among internal managers on the value and benefits of pursuing selected projects.

4. Industry provided the capital investment required to make the technology a commercial success.

5. Industry and National Labs can effectively collaborate to solve broad based problems.

Government can play a vital role in manufacturing technology development. Manufacturing is the machine that drives the U.S. economy by providing 21 million jobs and 20% of our Gross Domestic Product. Unfortunately, the U.S. accumulated about a $500 billion trade deficit in the manufacturing sector between 1985 and 1990. This deficit reflects the loss of domestic competitiveness in many global markets. We must learn to convert science into technology faster and more reliably if we expect to maintain our position in global markets. Government partners can help industry augment commercialization risk through their support of demonstration projects that provide broad based benefits to the economy while strengthening the competitive position of U.S. manufacturing.

Successful commercialization that enhances our competitiveness is also in the government's interest. We estimate that every dollar profit from the U.S. chemical industry provides between $1-2 of tax revenue for local, state, and federal governments. This revenue stream includes federal and state income taxes from industry and its workers, property taxes, FICA taxes, and taxes paid on dividends to name a few. A robust domestic economy with leading edge technology could contribute significantly to the reduction of our balanced budget problem by reducing high unemployment entitlements while providing solid revenue streams. The U.S. must reverse trends that indicate our global position in manufacturing is eroding. Partnerships between industry and government is one path to a win-win solution to our economic woes.

To maintain our quality of life, standard of living, and reduce our trade deficit, we need to recognize that free trade does not exist globally. Free trade is a worthy goal and we need to take steps toward it. Barriers and tariffs would be a last resort to counter foreign government subsidies. Support of our high risk technical activities would be a step toward leveling the playing field.

The Federal Government must encourage partnerships between key agencies and industries if we expect to remain competitive in a global economy. The ability of U.S. Industry to compete in tomorrow's world is vitally important to individual companies, government, and the citizenry that depend on profits, tax revenue and jobs, respectively. Demonstration of the new technology which will be demanded in future markets must be done today. Please continue to support R&D demonstration projects.

Thank you for your attention and I would be glad to answer any questions.

FRIDAY, MARCH 24, 1995.

DOE: MOLTEN CASTING COMPETITIVENESS RESEARCH PROGRAM

WITNESS

DONALD R. GLENN, VICE PRESIDENT, ENERGY RESEARCH CORPORATION

Mr. REGULA. Energy Research Corporation. Good morning.

Mr. GLENN. Good morning, Mr. Regula, good to see you.

Mr. REGULA. You have some exhibits for us?

Mr. GLENN. With five minutes, I think the picture telling a thousand-word story might help a little bit. I am Don Glenn, Vice President, and I am accompanied by my associate, Eric Simpkens.

[The statement of Mr. Glenn follows:]

Statement of

DONALD R. GLENN
Vice President
ENERGY RESEARCH CORPORATION
Danbury, Connecticut

FY 1996 Department of Energy Budget Request
Fossil Energy: Carbonate Fuel Cell Program

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to the

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR & RELATED AGENCIES

Ralph Regula, Chairman

March 24, 1995

Statement of
Donald R. Glenn
Vice President
Energy Research Corporation
Danbury, CT & Washington,DC

STATEMENT SUMMARY

FY 1996 DOE Fossil Energy-Fuel Cell Budget Request Impact

The proposed FY 1996 Budget for the DOE-Fossil Energy: Molten Carbonate Fuel Cell account does not match the funding called for in the two recently signed contracts with ERC and MC-Power. For ERC, the $14.2 million allotment is $8.2 million short, a drastic departure from the good-faith negotiations that concluded in just this past December 1994.

ERC's Direct Fuel Cell program and technology is assessed as one of the leading fuel cell accomplishments worldwide with the onset of commercialization in only two-three years. The final push in our collaboration with the DOE, through the new multi-year cost-shared contract, is absolutely dependent on adequate funding. At stake are early unit orders (to begin this year), private investment in commercial manufacturing facilities (to be in place next year) and the market's expectations that the promised schedule of early unit deliveries is met (planned for 1999). **I urge the Congress to bring this account to the full contracted amount to preserve the pace of progress and maintain the U.S. lead position in these very successful programs.**

Market Situation and Outlook

New environmental and power system-related legislation has introduced deregulation to the utility and other power equipment markets, on top of stricter pollution control standards. The near-term effects are causing a normally conservative business to withdraw into defensive strategies for the moment. New large- and replacement- power plant orders remain on hold while the nation's economy recovers. Increased electrical demands will be met by an industry with excess capacity now, but with no growth provisions for the late 1990s and beyond. The clear trend is to smaller (2-100 MW) plants designed for specific power missions. These include repowering (50-250 MW), additional capacity (10-50 MW) and distributed generation (1-15 MW). The last category, distributed generation, including cogeneration applications, are the target markets for early market entry fuel cell power plants.

Fuel Cell Program Status

The R&D efforts of the remaining major U.S. fuel cell companies are at the point where full sized stacks and balance of plant equipment are ready for pre-commercial verification testing. With first units market entry planned for 1999, these product improvement verification tests are the crucial final steps in the R&D process. The three potential fuel cell system suppliers are making plans for major investments in commercial unit production and distribution facilities in advance of this date. Each contractor has defined a unique product offering to solve anticipated market needs for the turn of the century and, thus, gives our new technology the widest opportunity for success in capturing available market shares. ERC's Direct Fuel Cell (DFC) project is directed towards supplying a 2.8-MW factory packaged power plant. The internal-reforming direct fuel cell, developed by ERC, is the subject of world-wide interest including the 35 buyer/members of the Fuel Cell Commercialization Group who have endorsed this system as the first choice for their smaller power requirements.

The DOE-ERC program includes an impressive cost-share of over 40% from the private sector. For FY **1996, the contracted DOE portion is $22.4 million to cover the aforementioned tasks. We urge the committee to include this amount in the Molten Carbonate Fuel Cell account for the Direct Fuel Cell program.**

EXPANDED STATEMENT

Changing Utility Scenario

Regulatory Influences: The utility sector is in the initial stages of a revolution. As in any situation where major change threatens the status quo, traditional budgeting and planning horizons distort to accommodate the transient phase until the new directions become clear. Investor-owned utilities (IOUs) may be the most impacted by the trends associated with open transmission access, retail wheeling and stranded investment situations. Already, these impending changes combined with the present surplus generation capacity has caused downsizing staffs, reduced R&D support, and other "belt-tightening" actions by this component of the utility sector. On the other hand, municipal and rural utilities, and independent power producers, are more concerned with a lower capacity, assured supply associated with serving the smaller sized, more diversified loads that characterize their markets. Overlaying this change is the Clean Air Act Amendments that are scheduled to phase in later in this decade.

Generation shortages: The prognostications of energy economists and forecasters still maintain that the present generation capacity surplus will be rapidly consumed by a continuation of the ongoing economic recovery. In a strange contradiction of this positive trend, the rates of new- and replacement-generation capacity are not keeping pace as can be seen from even a cursory review of the dearth in backlog of power plant orders. The clear conclusion is that, with leadtimes to permit and construct plants of approx. 5-8 years or more, installed capacity cannot meet the projected electric demand later in this decade and the early part of the next century.

These considerations lead to the following possibilities:

- Increased emphasis by IOUs to further defer plant retirement while investing in pollution reduction equipment and emission offsets
- Risk-averting investments such as purchasing smaller capacity power plants to more closely match demand increases and avoid T&D line upgrades
- Greater use of fuel switching and higher efficiency systems to reduce costs of energy production
- Greater competition to serve new loads with existing transmission and distribution networks

Fuels Flexibility

Over 50% of all utility generation is provided through baseload coal-steam turbine generation. The remainder is shared between natural gas, some oil, hydro, and newer energy and fuel sources, i.e. solar, biomass. For the foreseeable future, natural gas will capture most of the new generation equipment market as it is readily available, low cost, and clean burning. Gas prices will increase as the combination of high demand and declining supplies become realities accompanied by the re-emergence of gas curtailments. With plant useful lives of over 30 years and anticipating price competition with other fuels during this period, the ability of new fuel cell generator systems to accept alternative fuels with minimum or no required downtime is a major advantage.

Commercialization Outlook

The response capability of the utility sector to meet the substantial electrical demand growth projected by its own trade associations, such as the Edison Electric Institute, runs counter to current actions. IOUs now with excess capacity will defer new plant orders and stretch already obsolete generation systems to avoid new capital investment due to the uncertainty of impacts associated with the new deregulation climate. Should the national and world economic recovery continue, the surplus could be exhausted within three years. With no new plants ordered, an unfavorable competitive position exists for satisfying market demands.

This lack of new plant orders have chased U.S. and foreign power plant engineering and hardware equipment sales overseas where more opportunities for new generation abound. It can be postulated that even if domestic orders for new plants increase, the backlog of foreign projects would delay plant construction as equipment suppliers are already at their limits to provide systems for existing orders. Even if this scenario is not widely accepted, the fact remains that larger plants, say above 300 MW, are not in vogue in the U.S. at this juncture.

The anticipated increased demand for new and replacement capacity where plant retirement cannot be delayed, will be largely met by natural gas fired power systems that can be quickly permitted, licensed and delivered for a broad range of applications from a few megawatts to a few hundred megawatts. ERC believes that carbonate fuel cell power plants will compete in the lower ranges of this market, i.e. 1 to 5 MW, in the early years of commercialization. Moreover, these systems may uniquely fulfill niche applications unavailable to other generation options such as landfill gas and sludge digester gas utilization, coalbed methane and distributed generation functions where site restrictions on noise and pollution, or high power quality requirements are imposed on the local utility.

The Role of Fuel Cells

Fuel cell power plants are the first totally new generation technology to reach a market entry condition since the turbine was introduced following the second world war. An outgrowth of the defense establishment, turbines have been dramatically improved to their current state where higher efficiencies (to > 50%) and low NO_x performance are possible in larger scale equipment (> 100 MW). By contrast, fuel cells will enter the market with these features plus simplicity through passively operation in small capacity systems with unparalleled low pollution and noise. There is every reason to assume that as an embryonic new system, similar dramatic performance and cost improvements are ahead for this capability as occurred for turbines. ERC has already synthesized an advanced design that does not require significant additional development and produces power at over 60% electric efficiency, an achievement not likely possible with any other known power generator.

Within the family of these new fuel cells, the most prized for multi-megawatt class applications worldwide, is the carbonate fuel cell. Moreover, the simplest and most fuel versatile within this category is the internal-reforming variant. ERC has coined the name, the Direct Fuel Cell (DFC) to describe this embodiment. The DFC accepts any methane- or hydrogen-carbon monoxide containing gas fuel singly or in blends with no performance sacrifice. This capability to internally process methane (and other fuels) into hydrogen, the ultimate chemical energy form from which the electro-chemical reactions create power, is the quality that sets this generation technology apart from other fuel cells. This feature, and its perfection, is the target of many R&D programs worldwide and is presently accorded to be led by the U.S., and more specifically the ERC/DOE program, further detailed below.

Status of the DFC Program

The two U.S. carbonate fuel cell contractors, ERC and MC Power, have defined their approach to commercializing this technology and are now building full-scale proof-of-concept demonstrations. The government funding portion for these cost-shared efforts has been appropriated. ERC's commercial subsidiaries, the Fuel Cell Engineering Corporation and Fuel Cell Manufacturing Corporation, are engaged in constructing the world's largest carbonate fuel cell system demonstration, a 2-MW natural gas-fueled plant at Santa Clara, California. This unit is planned to start operation in October.

In December 1994, DOE contracted a new cost-shared five-year initiative with each of the two U.S. carbonate fuel cell contractors. These programs will complete the essential development by culminating in cost-shared pre-production prototype commercial product improvement tests. For ERC, these final steps will prove to our early buyers (already in-place) the readiness of production-like units to meet their performance and cost targets. This long sought and critically needed new generation option builds on a 15-year R&D cycle with a remarkable history of technology development success for a government-industry undertaking.

ERC urges the Congress and Administration to provide the funds called for in the new contracts. Realizing the limited availability of scarce public funds, ERC has garnered over 40% of the total funds from the private sector. A bipartisan-supported program over these past years, we ask the Congress to maintain the present momentum in order that these systems be marketed and sold as now scheduled. ERC's first units are to be purchased by the 35 buyer-Fuel Cell Commercialization Group (FCCG) that formed to endorse ERC's 2-3 MW power plant and commercialization program. The window of opportunity coincides with developing utility needs for smaller scale, pollution-free and easily sited power plants starting later in this decade. There is also a large overseas market for these systems and with it several well-funded competing foreign programs led by the Japanese.

The implied national energy policy recognizes the value of developing alternative fuels from coal, biomass and other non-conventional resources. With the implementation of the last round of clean coal technology awards, the next opportunity appears to be with biomass resources including domestic solid- and agricultural- wastes, sludge from domestic wastewater, and energy crops. To this end, it is expected that incentives encouraging economically viable biomass production and utilization will be forthcoming. These may be integrated with the cost reduction proposals now being formulated by both the Administration and the new Congress. One such initiative may create a new energy crop-growing subsidy to replace the Conservation Reserve Program (fallow field) subsidy. With the use of biomass gasification, a medium-BTU fuel gas is produced that is directly applicable to fuel cell power generation at an electric efficiency of over 50%. The overall system results in no increase in CO_2 (greenhouse gas) emissions and produces a residual ash that has value as a soil amender, thus no ultimate waste disposal problems are introduced.

FY 1996 Priorities

The Administration and Congress, as with the utilities, are re-examining current and planned programs to streamline funding and manpower in today's conservative fiscal climate. ERC and the other fuel cell developers are moving to commercialize several second generation technologies-carbonate and tubular solid oxide fuel cell power systems in this decade. For ERC's part, we have met all the contractual promises in our DOE and utility-backed initiatives. We have amassed a consistently higher cost-share percentage than required by the DOE, established buyers interests from companies representing about 25% of U.S. generation capacity, and are completing construction of the world's first and only multi-megawatt carbonate fuel cell power plant demonstration. While juggling priorities in the current economic and political cycle, Congress must protect the nation's future energy security and trade potentials worldwide from this American-led technology. The new DOE five-year contracts for carbonate fuel cell product improvements and tests provides a major contribution to this future.

Congress has mandated that the DOE program and DOD fixed base power plant missions be coordinated for maximum efficiency in the use of Federal funds; this has been accomplished in the ERC program. The on-going design activities are an integrated response to include oil-based (logistic) and natural gas fuels in a common design approach along with development of the military-required approach to depot and field-level deployment and maintenance responses to assure operational integrity and energy security.

Thank you for the privilege of providing this statement to the Committee.

Mr. REGULA. Is this a private company that does consulting?

Mr. GLENN. No, we are a manufacturing firm intended and we have just been—we went public with our first initial public offering in October 1992.

Mr. REGULA. What do you do?

Mr. GLENN. Fuel cell power plants based on carbonate technology. And as you know, having been here for many years, the committee has been extremely friendly to the program and we probably wouldn't have survived if the committee hadn't continually maintained a reasonable budget.

Mr. REGULA. Do you think you are ready to commercialize?

Mr. GLENN. We are very close. That is what I wanted to show you here. The committee has already authorized and appropriated full funding for the first two megawatt demonstration in Santa Clara, California. It is now 80 percent complete constructed and start-up is intended to begin in October of this year, and it is a done deal as far as the funding. All funding is in place.

Mr. REGULA. Okay. When that is done you produce, what, electricity?

Mr. GLENN. Yes.

Mr. REGULA. What is your kilowatt cost going to be compared to the routine turbine or power plant?

Mr. GLENN. Conventionally produced power is in the neighborhood of five-and-a-half to six cents a kilowatt hour and I would say to you on entry, with the pricing that we have already promised a buyer's group, which I will show you in a minute, we are at five-and-a-half cents.

Mr. REGULA. So you see it as a competitive technology?

Mr. GLENN. We are going to be able to enter the market with the best of today's technologies but at a much smaller size. This is a two to three megawatt power plant.

Mr. REGULA. So you see these for small companies that want to establish their own power source?

Mr. GLENN. Distributed generation from the utilities. The buyer's group—you are giving me a chance to sort of switch gears. We have a buyer's group of 35 utilities and IPPs, independent power producers. Unfortunately, we haven't got GPAES in there yet.

Mr. REGULA. What is the buyer's group?

Mr. GLENN. These are people that are intending to buy our first commercial product.

Which is this power plant here. The contrast is what you saw for Santa Clara has evolved into this engineering design and this unit here is what is to be offered to the buyer's market for sale this coming year.

Mr. REGULA. Where is the juice coming out of that one?

Mr. GLENN. Of course it doesn't show, but there is a switch gear up on top, would be the interface to the place that the user needs to have the power delivered. There is also a heat stream for cogeneration, if that is desirable, and of course this is the beauty of fuel cell. It is quiet. It is 50 percent efficient electric, and it is easily siteable. This is a big tennis court in terms of size. This would suit a hospital load, office building, shopping centers.

Mr. REGULA. Would the big power companies buy this technology from you?

Mr. GLENN. If you asked them today, they might have a problem because of all the deregulation that is going on, but if you go past what we believe to be the blip in the transient in the electric industry today and society continues to show an economic recovery, which I think we all see happening, the demand for electricity is going to go higher and beyond that which current capacity will be able to serve.

Mr. REGULA. Won't the new FERC rules help?

Mr. GLENN. Yes.

Mr. REGULA. They have to transmit external sources?

Mr. GLENN. I don't know. This is a two to three megawatt power plant and I think it is difficult to draw a contrast with that size system to hundreds of megawatts.

Mr. REGULA. But could—a hospital we have this as a standby?

Mr. GLENN. No. It would be primary power. It would not be standby.

Mr. REGULA. It would not be standby.

Mr. GLENN. No. This is more reliable a source of power, even at its size, than the grid is.

Mr. REGULA. If you have got about a minute, tell me how fuel cell works.

Mr. GLENN. Oh, my. In a minute. Basically it is a battery that operates continuously. If you put natural gas in, it electrochemically changes the energy content of the gas or the fuel form into DC power, much like a battery, and then it is converted to AC.

Mr. REGULA. So your external energy source is natural gas?

Mr. GLENN. Conventional fuels. Could be natural gas, by the way. In a follow-up conversation, I need to talk to you about landfill gas application because our second demo, part of the DOE program, is to be on a landfill in New York City. The budget request——

Mr. REGULA. What kind of a gas do you get out of a landfill?

Mr. GLENN. About 55 percent methane. Remainder is CO_2.

DC power to AC power to do whatever you do with power. You can run some of the processing that goes on in the landfill or directed to a grid, but the key point, before I get off the stand please, is the government—the administration has woefully under-appropriated in its request the contract we just signed in December with them for. We are $8 million short of making our promises good to the buyer's group, and I am afraid, frankly, if this program slides much, the buyer's group is going to evacuate the program. It is a very dire situation. I am sorry, five minutes just can't get me into the flow of this.

Mr. REGULA. Will the buyer's group provide a match?

Mr. GLENN. The buyer's group are buyers of the—the cost share on the entire program as it stands now is 43 percent private funded.

Mr. REGULA. And 57 government?

Mr. GLENN. Which is an extremely high match for an entire project of this kind. It is not just a demo.

Mr. REGULA. I have got to learn more about fuel cells.

Mr. GLENN. My pleasure.

Mr. REGULA. Thank you very much.

FRIDAY, MARCH 24, 1995.

DOE: METAL CASTING COMPETITIVENESS RESEARCH PROGRAM

WITNESS

RAYMOND MONROE, STEEL FOUNDERS OF AMERICA, CAST METALS COALITION

Mr. REGULA. Cast Metals Coalition. It is our last witness before lunch.

Mr. MONROE. I don't know which is worse, being the last before lunch or the first after lunch.

Mr. REGULA. Depends what you do at lunch.

Mr. MONROE. I guess.

Raymond Monroe, Executive Vice President of Steel Founders' Society here on behalf of Cast Metals Coalition in support of the metal casting competitiveness research program. That is a mouthful. Thanks to you, Chairman Regula, Congressmen Yates, Bevill, and McDade have supported us on this program in the past.

Many people confuse us with other segments of the metal fabricating industry, but we are really a small slice of it. We pour directly from liquid into a shape. Some examples of that that are of current interest, the Oscars are metal casting.

[The statement of Mr. Glenn follows:]

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AFS
American Foundrymen's Society, Inc

NADCA
North American Die Casting Association

SFSA
Steel Founders' Society of America

Testimony of Raymond Monroe
On behalf of the Cast Metals Coalition
Before the
House Appropriations Subcommittee on Interior
March 24, 1995

Chairman Regula and members of the subcommittee, on behalf of the Cast Metals Coalition and the entire metal casting industry, thank you for permitting us to testify in support of the full $5 million funding for the Department of Energy Metalcasting Competitiveness Research Program (P.L. 101-425). We would particularly like to thank you and Messrs. Yates, Bevill and McDade for the past support of this vitally important program.

The Cast Metals Coalition (CMC) is a joint effort of the American Foundrymen's Society, the Steel Founders' Society of America and the North American Die Casting Association. These associations have represented the technical and professional interests of the metalcasting industry for 100 years. CMC has a single focus -- to represent the industry, large and small, in promoting metalcasting research.

Metalcasting Makes America Strong

Metalcasting is one of the oldest technologies and continues to be vital to our national economy. Today, metalcasting is the sixth largest industry in the U.S., with nearly 3,100 foundries and die casting companies producing castings valued in excess of $23 billion annually. Our industry directly employees over 250,000 people and is indirectly responsible for the employment of millions of other people whose livelihood depends on the manufacturing sector.

History has proven that the industrial prowess of our nation rests on the shoulders of the metal casting industry. Cyrus McCormick's reaper, the Wright brothers airplane, Henry Ford's auto and assembly line -- none of these historic developments or the long line of manufacturing that stem from them would be possible without metal castings.

In enacting this program five years ago, Congress recognized the critical role played by the metalcasting industry in every other manufacturing process in the nation; whether it be for energy, transportation, aerospace, agriculture, mining, textiles, logging or national defense. In fact, metal castings are used in 90% of all manufactured goods and in 100% of all manufacturing machinery.

For instance, railroads roll on cast steel wheels supported by cast steel frames and bolsters. Autos are powered by an assembly of cast iron blocks, ductile iron crankshafts, cast aluminum pistons. Planes are propelled by jet engines containing cast alloy blades, vanes, turbine wheels. Your home contains more than two tons of cast pipe, bathtubs, sinks, fixtures, hardware, furnace, and air conditioning parts. Your food is planted and harvested by tractors and implements made from cast components. Textile machinery is primarily an assembly of castings. Logging equipment involves an intricate mix of cast parts. When you play, it's with cast golf clubs, catcher's masks, musical instrument keys, piano backs, marine hardware, air-cooled motors, and the list goes on. Practically nothing happens without a casting. Quite simply, all other processes are dependent upon metal that has been shaped into some usable form -- that is what metalcasting is all about.

The interdependence of all industry on metalcasting is clearly illustrated by the energy sector. Metalcasting uses energy to convert scrap metals into usable products. Energy is an essential supplier to metalcasting supplying over 250 billion BTUs per year. It is common for a foundry to be the largest consumer of energy in a community. Improved energy efficiency would make our industry more competitive.

Energy production and distribution requires metal casting components. Steam turbine casings for electrical generation, tubes for petroleum refining, oil well blowout preventors pumps and valves for natural gas pipelines, and coal mining equipment use castings to perform critical functions. Energy production and distribution would be improved by improved casting technology. Energy and metalcasting are interdependent.

A healthy foundry industry is also essential for the national defense of our country. As you may expect, castings are vital to military equipment and weapons components. Approximately 10% of the metalcasting annual output is used for national defense applications. Examples of Army products reliant on castings are tanks, trucks, and artillery. The Navy utilizes castings in submarines for critical hull and machinery applications, such as diving, propulsion and weapons handling systems. Navy surface ships also require castings in their hull, power, and armament systems. Aircraft in all services use castings in the fuselage as well as in engine accessories. Castings use is also found in missiles, bombs, and small arms components.

DOE Metalcasting Research Helps the Industry Stay Strong

With this great dependence of our nation's manufacturing base bearing upon the casting industry, it is particularly amazing that the bulk of casting companies are small and medium size businesses. In fact, 96% of the foundries and metal casters in this country are small shops with fewer than 250 employees.

Congress took specific recognition of this important fact in enacting the Department of Energy program. Congress noted that because the industry consists of small shops, these operations cannot on an individual basis, support the research necessary to stay competitive.

In order to compete in today's international markets, we must have the best in technology and we cannot wait. If we are late, the country which develops and implements it will take markets from us, and deprive American workers of the opportunity to make products. The very purpose of the DOE metalcasting research program is to give our foundries a better opportunity to develop this technology here in the United States, where it will be used by American foundries, with the benefits passed on to their customers, and in turn to American consumers.

Strong bi-partisan support of Congress; overwhelming commitment of industry; solid management by the U.S. Department of Energy (DOE) -- this partnership has been the cornerstone for the success of the "Department of Energy Metalcasting Competitiveness Research Program" (P.L. 101-425) during the last five years.

Our industry has always agreed that Congress and the federal government should apply scrutiny to those research programs that use federal resources. We applaud these efforts and are confident that, when reviewed on its merits, the metal casting research program stands up to the following criteria:

Criteria	DOE Metal Casting Research Program	
Authorized by Congress??	YES!	Public Law 101-425.
Matching $?	YES!	Every federal dollar matched by industry.
Competitive process?	YES!	Competitive proposals solicited.
Peer Review?	YES!	For selection and throughout research.

(continued)

Criteria	DOE Metal Casting Research Program
National Benefit?	**YES!** 3100 foundries & 250,000 jobs across the nation.
Assists Small Business?	**YES!** 80% of all foundries have 100 or fewer employees.
Bipartisan Support?	**YES!** 111 orig. House cosponsors/25 Senators.
EARMARKED?	**NO WAY!** We have fought for a stringent competitive selection process.

The DOE Metalcasting Research Program has proven to be a highly effective partnership between industry and the federal government that is already generating valuable results being used on shop floors all across this nation. This program is particularly noteworthy on several accounts.

First, the research is industry driven. Industry has worked closely with the researchers to ensure that results can be transferred to the foundry floor in a timely manner. Industry involvement in the research projects results in a dialogue between researching and casting producers. This dialogue aids the researcher in directing his efforts at the commercially important research needs. The dialogue also allows the casting producer to try new things during the program and not wait until the end of the project to use the results. This allows rapid implementation and industrial feedback into the research programs funded. To date the three major industry technical societies and over 135 companies are involved in the program.

Second, industry has worked with Congress to establish and protect the open and competitive process in awarding research funding. We strongly believe that the competitive process -- not earmarking -- allows those proposals which are most responsive to industry's needs to rise to the top and be selected for funding.

Third, the research being conducted has a strategic focus for practical application. The following are just a few of the tangible results being generated the program. AFS co-funded efforts in emission characterization at the University of Alabama, Tuscaloosa and electro-hydraulic waves for core removal is helping the industry to work with EPA in developing and ultimately complying with clean air regulations. The electro-hydraulic core removal program offers the potential for a "quantum leap" technology to modernize the core removal process for the entire sand foundry industry and can result in lower operating costs, faster removal and a cleaner environment.

Cleaner and more consistent casting quality has resulted from the DOE funded work in electromagnetic filtration and metal penetration. Clean metal processing allows thinner walls, lighter weight and higher strength castings to be produced. Additional market applications are realized through the use of such technology. Additional research will bring this technology to the foundry floor.

A model can now be used to predict the occurrence of penetration defects before they occur. The model takes all the contributing conditions and tells the foundryman how to change his metal or sand system to overcome the potential for defects. These type of defects are a $65 million a year problem for the iron foundry industry. The implementation and further revision of this model will reduce this problem by a factor of 10!

In addition, die casting research on modeling thermal fields; die coatings and alloy microstructure has been completed by Ohio State University (OSU); University of Wisconsin (UW); and, Worcester Polytechnic Institute (WPI) in Massachusetts.

Another die casting project involving sensors to monitor the die casting process will allow die casters to achieve better consistency in their product and produce better castings. It is estimated that this will reduce scrap and result in a savings equivalent to $35 million per year for the die casting industry.

More research is being conducted in broad array of focuses with practical applications. See "Cast Metal Research Review" attached for more information.

We have also worked with several national labs to identify technologies which can be applied to our industry. We will continue these efforts to match developed technology to our needs.

This subcommittee should be proud that all of this has occurred in only five years and with only about $8 million in federal funds matched by industry. We know that in the realm of what your subcommittee and the DOE deals with that a $5 million dollar program may seem somewhat insignificant. Nothing could be farther from the truth for our industry. This is a "can-do" program that is delivering results where they are most needed -- to thousands of small and medium metalcasting shops across our nation. That is why the program is supported by industry and by the Department of Energy.

Compared with the years prior to this program, the investment in technology development has increased twenty times. Investment is difficult from small private companies with required investment for regulatory compliance, low margins in a competitive industry, and customer pressures for improved quality and delivery. The public investment makes it attractive to form consortiums to raise private investment. Without this program we would not be able to raise the critical funding needed for effective technology development.

You can be confident that this program will continue to successfully enhance the diversity and quality of the metalcasting research so badly needed by this critical industry and that these will be federal dollars well spent.

We want to thank you for your past efforts and urge you to continue to support this important work by approving full funding in the amount of $5 million for FY 95.

Mr. REGULA. Why do you need DOE involved?

Mr. MONROE. Oh, the reason we need DOE involved is we are a bunch of small businesses. Eighty percent of our companies are under 100 employees.

Mr. REGULA. I understand, but isn't the technology commercial?

Mr. MONROE. We are looking at process and technology development to maintain our competitiveness and improve it so that we can——

Mr. REGULA. But shouldn't the marketplace do that?

Mr. MONROE. If we had the investment capital to do it, sure. Our problem has been that most of our capital—two things have happened to us. One is, not only are margins tight in the competitive market, but our mandated investments in regulatory compliance, 25 to 50 percent of our new capital investment. So we don't have very much investment capital to do. The companies are small. We have to form consortiums so we need some draw to entice that private investment to get to a large enough critical size to develop the technology.

Mr. REGULA. The role of DOE would be to develop innovative technology, but once it is commercial, then the marketplace should take over.

Now, I guess my question is, is this commercially feasible, these processes, or is there a reason that the taxpayer should fund part of it?

Mr. MONROE. This is all new technology. This is not commercial development technology. This is all new technology for improved product and process.

Mr. REGULA. How do you sell a taxpayer that he ought to finance part of this? What is the benefit I guess I am asking?

Mr. MONROE. Metal castings are everywhere.

Mr. REGULA. I understand that.

Mr. MONROE. Metal castings are everywhere and we suffered an erosion of metal casting capability. They will get better products, lighter blocks and heads in the car, more fuel-efficient cars. They will get more capable aircraft. They will get more reliable nuclear power plants.

Mr. REGULA. Safety, efficiency, which are of interest to all people.

Mr. MONROE. Right. Lower cost.

Mr. REGULA. Lower cost.

Mr. MONROE. Improved reliability.

Mr. REGULA. Are you getting some DOE funding now?

Mr. MONROE. Yes. This program has been authorized—one of the tests that we understand is authorization. We have been authorized for five years.

Mr. REGULA. Is this a 50/50 or what is the ratio of match?

Mr. MONROE. This is a 50/50 match. We think that is the most important selection criteria because that means not only do you have private investment, but private direction.

Mr. REGULA. How much did you get in 1995? What is in the budget?

Mr. MONROE. Department of Energy requested 1.72.

Mr. REGULA. For 1996?

Mr. MONROE. For 1996. The 1995 was $2.5 million.

Mr. REGULA. So you are here to support the 1.7?

Mr. MONROE. We would really like to go to our authorization number, which is $5 million.

Mr. REGULA. You know the problem.

Mr. MONROE. Sure, sure. But we really would like to—the 1.7 barely carries the mortgage on our existing programs and this is really a benefit to small business. It has been—we have got real results to show.

I have got a couple of copies here of the actual programs and some of the benefits that have been paid back, not only to the industry, but to society.

Mr. REGULA. Okay. We will take a look at it and we are going to have a tough time making the money stretch this year.

Mr. MONROE. We know that, but we think this is—if you analyze the programs that are being invested, we are asking for a very small amount of money, and if you apply the criteria that have been proposed in terms of programs being authorized or being matching funds, industry involvement, we think this program is a worthy candidate.

Mr. REGULA. I have to say in all honesty, and not just in this committee, but as a Member, nobody, including from my home have come in that didn't have a good program.

Thank you very much for coming and we will certainly take a look at it. Committee is recessed until 1:00 o'clock.

AFTERNOON SESSION

FRIDAY, MARCH 24, 1995.

DOE: ENERGY RESEARCH

WITNESS

DAVID O. WEBB, SENIOR VICE PRESIDENT, POLICY AND REGULATORY AFFAIRS, GAS RESEARCH INSTITUTE

Mr. REGULA. I say to all of you, we are on a five-minute schedule here so we are going to really push it, and I appreciate your help on that. Go ahead.

Mr. WEBB. Thank you, Mr. Chairman.

The Gas Research Institute appreciates the opportunity to be here to present our views and recommendations on Federal funding for research development and demonstration in DOE's fossil energy and energy efficient programs. GRI is convinced the Federal Government has a continuing vital role as a primary funder of longer-term fundamental basic research and that DOE, in partnership with industry, has a continuing role in applied energy R&D.

As you are aware, GRI is the management organization for the natural gas industry. We jointly fund and co-fund and plan projects with DOE. Therefore, changes in Federal policy on energy, as well as levels of energy funding, have an impact on our cooperative program.

GRI supports the goals and funding levels proposed for natural gas R&D by DOE in their fossil energy and energy efficiency programs in the fiscal year 1996 budget. Industry support in this budget is evidenced through significant co-funding.

As you are aware, Federal energy R&D policy sets the future direction for the development and use of our Nation's valuable energy resources. The role of the Federal Government in R&D is critical as a basis for decision making by industry, and as you review the role of the Federal Government in energy R&D, we would urge you to recognize the need for the Federal Government to continue to support longer-term basic research, the need for a reasonable transition period as budgets for applied R&D are reduced, and the need to adhere to a consistent policy across all energy sectors.

The Federal Government must continue to have the primary role and responsibility for funding and managing the long-term basic research. Society receives large and continuing benefits from this fundamental research. However, the private sector cannot capture, if you would, the economic rent associated with benefits of this research. Therefore, private industry will not fund long-term basic research at a level commensurate to achieve national goals objectives.

In applied R&D, we think both government and industry has a joint responsibility to plan and co-fund this work. We think in looking at the tight R&D budgets that you ought to recognize that co-funding should be required from the private sector. This will get the private sector involved in prioritizing the R&D. It will also be sure that the R&D is focused on addressing the goals that industry has to address themselves.

So we think that a systemic reduction of the R&D budgets in applied RD&D over a three to five-year period with a priority given to those projects they are co-funding will give industry a road map to adjust our own budgets and to make the necessary adjustments, if you would, in our own funding levels.

We think a good example of how this can work is a Memorandum of Understanding between DOE and the Gas Research Institute that was signed last May. We jointly plan and co-fund under that memorandum about——

Mr. REGULA. Funded at what level or ratio?

Mr. WEBB. It is 50/50 over the whole MOU. In some projects, they may only fund 40 percent and we fund 60; in others, they fund 60 and we fund 40. We co-fund about $30 million a year under that, Mr. Chairman. We think that is working. We would say that that—there are other examples, I am sure, but that is one that I think the committee ought to look at as a way as you reduce these Federal budgets for applied R&D, to look at those type of memorandums.

Since our utilities and pipeline members are regulated, we do need a transition period because they have to go before the different regulatory bodies in order to increase their R&D budgets, so we would ask for you to consider that, a phasing out of projects over three to five years. We would ask you to give priority co-funding.

And the last thing, Mr. Chairman, if Congress expects industry to conduct more of the R&D for this Nation, then some kind of incentive needs to be given especially to the regulated industries. We would notice that the R&D tax credit is set to expire in mid-1995. One suggestion we would make is that of a permanent extension of the tax credit. A flat 20 percent tax credit for collaborative R&D where groups come together to co-fund research would be an incentive that our industry would be receptive to and allow us to step up and fund more of the research.

We thank you very much, Mr. Chairman.

Mr. Regula. Very well. Sounds like you are on the right track. Thank you.

[The statement of Mr. Webb follows:]

Statement of
DAVID O. WEBB
SENIOR VICE PRESIDENT, POLICY & REGULATORY AFFAIRS

Before the
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
APPROPRIATIONS COMMITTEE

MARCH 24, 1995

Gas Research Institute (GRI) appreciates the opportunity to testify before the Interior & Related Agencies Subcommittee to present GRI's views and recommendations for federal funding of research, development, and demonstration (RD&D) programs within the Department of Energy (DOE). GRI is convinced the federal government has a vital role as the primary funder of long-term, basic research and that DOE, in partnership with industry, has a continuing role in applied energy RD&D. Based on this policy, GRI supports DOE's FY 1996 gas-related RD&D budget. Through an orderly transition over the next five years, the DOE budget for applied energy RD&D can be reduced by obtaining more cofunding from industry and rigorous prioritization of RD&D. A five-year transition is important to allow current jointly-funded projects with industry to be completed and to allow industry time to adjust its RD&D plans and budgets to accomodate a reduced federal role.

GRI is the RD&D management organization of the natural gas industry. Its mission is to discover, develop, and deploy technologies and information that measurably benefit gas customers and enhance the value of gas energy service. GRI jointly plans and cofunds many projects with DOE Fossil Energy and Energy Efficiency program offices. Therefore, any change in policy or reduced levels of federal funding of RD&D has an impact on GRI and the gas industry's cooperative research program.

GRI supports the goals and funding level proposed by DOE in their FY1996 natural gas RD&D budget request. This budget was put together with input from the industry and with the goal of completing important on-going projects in a timely manner. Industry support of this budget is evidenced through significant cost-sharing of many of the projects. Generally, these are projects industry is unable to do themselves because of our own tight budgets, regulatory barriers, or because the companies involved are too small to have their own RD&D departments and budgets. The proposals set out by DOE, if supported by Congress, will result in completion and commercialization of technologies which will contribute significantly to the nation's goals as we pursue all of our energy options. In addition, many of the products which result from this RD&D are excellent candidates for export to other countries, thereby increasing the U.S. position in global competitiveness.

ENERGY RD&D POLLICY: GRI's policy is to obtain an industry partner and industry cofunding once a project reaches proof of concept or within three years after project initiation. This is to ensure the products developed enter the marketplace. Since GRI does not manufacture or market the final product, it is essential that a manufacturer or other financial partner be included in order to facilitate the commercialization of a technology.

Congress should consider using similar criteria for funding applied energy RD&D and encourage DOE to form partnerships with industry as part of the overall effort to reduce federal spending.

RD&D sets the future direction for development and use of our nation's valuable energy resources. The role of the federal government in energy RD&D is critical as a basis for decision-making by industry as it competes in an ever increasingly competitive world market. As you review the role of the federal government in energy RD&D, I would urge you to recognize:

1. The need for a differenct level of support between basic research and applied R&D,
2. the need for a reasonable transition period as federal budgets are reduced,
3. the need to adhere to a consistent policy across all energy sectors, and
4. the need to allocate budgets in proportion to energy use in the U.S. economy across all energy sectors; i.e. eliminate current sector bias.

BASIC RESEARCH: The federal government must continue to have the primary role and responsibility for funding and managing fundamental, long-term basic research. Society receives large and continuing benefits from fundamental research. However, in today's competitive environment, individual private companies are market driven and, in nearly all instances, cannot capture the economic rent associated with any benefits derived from basic research to their bottom lines. Since private industry focuses primarily on annual earnings to stay in business, their research is focused on those short-term programs that make incremental improvements to existing products in order to increase sales. Therefore, government's role as a primary funder of basic long-term research is both appropriate and essential because private industry will not and cannot fund the level of basic research necessary to achieve national goals and objectives.

APPLIED ENERGY RD&D: Both government and industry have a joint responsibility to plan, conduct, and fund applied RD&D to meet national goals. Industry should be brought in early to assist in the planning, financing, and management of the applied research. The partnership of private industry in federally sponsored RD&D accomplishes several goals.

1. If the research is an industry priority, industry will cofund early on to the extent of their ability. Without industry support after three years, government should question their own role in the research.
2. Industry will bring rigorous cost/benefit analysis and prioritization of RD&D.
3. Once industry buys into the research and participates financially and managerially, the commercialization path will be shorter, because industry must get benefits from the research to survive.
4. When the project is ready for commercialization, industry is already on board and has a significant stake in ensuring the technology reaches the marketplace, thus ensuring success from government and industry investments.
5. Finally, duplication of research will be eliminated.

Government-funded applied RD&D projects should not proceed beyond proof of concept or go beyond a few years (for instance, three) without some industry cofunding. If industry cofunding reaches 50 percent of a project's cost, the industrial partner should assume responsibility for the daily management of the project.

Implementation of the above-mentioned policy for federal funding of applied research will allow the federal budget to be reduced systematically over a three- to five-year period without prematurely canceling projects of interest to industry. The policy would also establish a road map that industry can follow to adjust to lower levels of RD&D funding by the federal government. Both industry and government will benefit in terms of research dollars saved and the timely completion and commercialization of technologies while avoiding duplication of research efforts.

DOE/GRI MEMORANDUM OF UNDERSTANDING: A good example of a successful industry and federal government partnership is illustrated by the DOE/GRI MOU. While GRI does not contract with the federal government and does not accept government funds, it does participate with the federal government through joint planning, cofunding, and cooperative funding of research. Through these joint programs, GRI and DOE ensure that RD&D dollars of both organizations are leveraged and that costly RD&D is not duplicated. Equally important the research will address the needs of the gas industry. Last May, GRI and DOE signed a Memorandum of Understanding which defines and formalizes a structure for exchanging information related to natural gas RD&D projects and provide for the coordination of DOE and GRI gas programs. Under the MOU, representatives from DOE and GRI meet several times each year to outline their programs and identify future cofunding areas of interest. Where there is overlap or common interest, discussion takes place on whether or not it would be beneficial to combine programs, thereby stretching both organizations' research dollars and avoiding duplication of efforts.

Over the past few years, GRI and DOE have worked together successfully to produce results which have benefited both the gas industry and this nation. Among these successes are:

1. The Phosphoric Acid Fuel Cell--The fuel cell is a commercially available 200 kW cogeneration package which provides very high efficiency power generation on site.
2. Secondary Gas Recovery--This technology taps into bypassed gas zones and partially drained reservoir compartments in existing gas fields for increased gas reserves at a minimal cost. The initial research was so successful in the Texas field tests that GRI and DOE have now moved to the mid-continent region to further prove the technology.
3. Gas Reburn--This technology involves injecting natural gas into conventional coal boilers to reduce nitrogen oxides, therefore allowing previously non-compliant utility boilers to now meet Phase I compliance targets under the Clean Air Act.
4. Natural Gas Atlas Series--Over the past several years GRI, DOE, USGS, and several other industrial partners have collaborated to develop a series of natural gas atlases for the different gas producing regions in the U.S. This is a useful tool for drilling companies and independent producers on a regional basis. Over 1800 of the atlases have been purchased.

DOE and GRI are currently conducting or have committed to joint research totaling nearly $30 million in 1996. Many of these projects are slated for completion in the 1996-98 time frame. Most of the projects have at least 50 percent cost sharing derived not only from GRI but many other participating members of the gas industry. These projects cover the full realm of the gas industry, from the exploration and production of gas to the final end use of the product in the areas of cooling, power generation, and natural gas vehicles. Some examples of projects GRI is cofunding with DOE include:

1. Greater Green River Basin study and follow-on research of low permeability reservoirs;
2. the development at Johns Hopkins University Applied Physics Laboratory of an advanced natural gas prototype passenger vehicle with a range of 300 miles without refueling; and
3. Fracturing Fluid Characterization Facility (FFCF) at the University of Oklahoma to better characterize hydraulic fracturing fluids and proppant transport to allow improved fracture treatment designs for tight formations.

TRANSITION TO NEW FEDERAL POLICY: In achieving the goal to reduce federal spending, if Congress adopts a policy to abruptly and significantly cut the applied research currently undertaken by DOE and other agencies, industry will not be able to pick up those programs quickly because of our limited budgets and the lead time needed to make budget adjustments. Since the gas utilities and pipeline industries are regulated, federal and state regulators often need to approve changes in rates necessary to increase RD&D funding. This is a long, complex process which does not always result in regulatory approval. Therefore, during your consideration of potential budget cuts of applied energy RD&D funds, we ask you to consider several factors which would be helpful to industry.

1. A phasing out of projects rather than an immediate termination to give industry and DOE an opportunity to finish projects that are near completion.
2. Give industry time to adjust their own budgets and reorder priorities. Without adequate time to adjust, industry cannot fund even all of the highest priority projects terminated by Congress.
3. If Congress expects industry to conduct more of the RD&D for this nation, then some kind of incentive needs to be given, especially to the regulated industry, in order to make increased private sector RD&D a reality. For instance, the RD&D tax credit is set to expire mid-1995. A permanent extension of this tax credit with a flat 20 percent credit for funding of collaborative research would be one way to assist private industry in meeting the needs of this country to continue RD&D. This would be especially beneficial to regulated industries.

GRI thanks the Subcommittee for its invitation to testify. We welcome the opportunity to work with you as you develop your policies and FY1996 budget recommendations for the natural gas programs within the Department of Energy. The decisions you make here will be important not only to the Department, but also to the natural gas industry and the nation. As you finalize the federal budgets, we ask that you be responsive to the need for a three-to-five year transition since immediately cutting programs will preclude industry from taking over even the most important RD&D. A reasonable ramp down allows industry to make adjustments in their own budgets and RD&D programs in order to continue the highest priority projects. In addition, it gives the natural gas industry time to address regulatory issues which must be resolved to increase its funding of energy research.

	DOE FY 95	GRI 1995	Industry	DOE FY 96	GRI 1996	Industry	Completion
Resource & Extraction (FE)							
Drilling Initiative	.3	1.3	.5	2.3	2.0	.77	FY 99
Diagnostic Tool to Assess Natural Fractures	1.4	1.5	-----	.5	.7	-----	FY 97
Low Permeability Basins--Greater Green River	2.0	1.5	-----	1.5	1.5	-----	FY 97
Fracture Test Facility/UofO	2.12	(a)	-----	-----	-----	-----	FY 95
Secondary Gas Recovery	.8	1.0	2.0	.8	1.2	.6	FY 98
Natural Gas Atlas Series	.5	.3		.5	.1	-----	FY 96
Utilization (FE)							
Low-quality gas upgrading	1.0	1.0	-----	1.0	1.0	-----	FY 96
International Center	.48	.48	1.6	1.0	1.0	1.6	FY 96
Advanced Turbine Systems (FE)	33.64	.2	N/A	N/A	.2	N/A	N/A
Environmental Research (FE)							
NORM Treatment & Disposal	.75	.5	.3	.75	.5	.3	FY 96
Fuel Cells (FE)							
Molten Carbonate	13.0	3.5	3.5	23.4	3.5	3.5	FY 99
Building Sector (EE)							
Desiccant Cooling	2.0	2.0	2.0	2.0	2.0	2.5	FY 97
Residential Absorbent Heat Pump	(c)	(c)	(c)	(c)	(c)	(c)	
Industrial							
Low NOx Burners	.89	.316	.093	.47	.54	.152	FY 97
Advanced Turbine Systems	10.8	.2	N/A	N/A	.2	N/A	N/A
Center for Advanced Materials	.03	.03		.03	.03		
Glass Refiner (c)	2.0	.50	.15	2.0	1.0	.30	FY 98
Air Toxics Reduction (BERL)	.98	.054	1.0	.98	.054	1.0	FY 96
Transportation							
NGV Cylinder Durability	.2	.2	.05	.2	.2	.05	FY 96
Absorbent Systems	1.0	1.0	1.0	1.0	1.0	1.0	FY 97
NGV Extended Range Vehicle	.2	.2	.125	.2	.2	.125	FY 96
NREL Solicitation	.3	.3					

(a) Cofunding completed by GRI in FY 94.

(b) Cofunding from foreign members of IEA, currently 9 foreign members contributing.

(c) Currently being negotiated.

N/A Not Available

GRI COFUNDED PROJECTS WITH DEPARTMENT OF ENERGY

FRIDAY, MARCH 24, 1995.

DOE: ADVANCED PRESSURIZED FLUIDIZED BED COMBUSTION SYSTEM

WITNESS

DR. DAVID H. PAI, PRESIDENT, FOSTER WHEELER USA CORPORATION

Mr. REGULA. Foster Wheeler, Dr. Pai. Your full statement will be made a part of the record.

Mr. PAI. Thank you, Mr. Chairman, for the opportunity to give my written statement today. My written testimony is entered in the record. I would like to summarize it.

I am here to ask the committee to consider funding the testing that Livingston Laboratory asked Foster Wheeler to do to support the advanced pressurized fluidized bed program. This is a U.S.-invented, DOE-supported program that has been ongoing at Foster Wheeler which has taken a lead, with supporting companies, such as Westinghouse and also, in a connected program, down in Wilsonville, and also this technology is also supporting the clean coal project.

I am here, Mr. Congressman, to ask the subcommittee here to keep an open mind, particularly in this tough transitional period of budget restraint. I guess proverbially, we would like you to look at this on its own merit because this is one of the technologies that there is very much interest in by the Pacific Rim countries where we are competing.

My company, along with companies such as Babcock and Wilcox, who are the two major domestically owned boiler companies competing in the international scene, we must have the technology as a necessary condition for competition, particularly in today's market where the competition from Europe and from Japan have——

[The statement of Mr. Pai follows:]

Testimony by David H. Pai
Foster Wheeler Development Corporation

To the Subcommittee on Interior
House Appropriation Committee

Subject: Advanced, "Second-Generation" Pressurized Fluidized Bed Combustion Systems

March 24, 1995

Good Morning, my name is David Pai. I am the President and Chief Executive Officer of Foster Wheeler Development Corporation, the research and development subsidiary of Foster Wheeler Corporation. Foster Wheeler is an international engineering, construction, and manufacturing company with major activities in power generation equipment and in engineering and construction of petrochemical and pharmaceutical plants. I am grateful to this Committee for the opportunity to testify.

I am here today to ask this Committee to review the DOE's fiscal '96 budget, with special emphasis on funding the pilot plant testing of the Advanced, or Second-Generation, Pressurized Fluidized Bed (PFB) facility in Livingston, NJ.

As you may know, the current, or First-Generation PFB, technology, which is being successfully demonstrated in Sweden, Spain, Japan, and the U.S., originated in Europe. An article in the December '93 Electric Power Research Institute Journal (attached) contains an excellent summary of progress to date and a promising projection for the future. The same article also mentions work on Advanced, or Second-Generation, PFB technology, spearheaded by Foster Wheeler and sponsored by DOE.

Briefly described in the Appendix, Second-Generation Pressurized Fluidized Bed Technology combines the best features of coal gasification and pressurized fluidized bed combustion to yield a highly efficient and clean power generation system. Such a system, when properly developed, will have overall plant efficiencies in excess of 45%—about one-third higher than conventional coal-fired plants operating today and some 12% higher than a First-Generation PFB plant. The environmental performance of this second-generation system is also substantially superior to today's plants and will exceed the 1990 Clean Air Act Amendment requirements.

Because of its unique features of hybrid gasification/pressurized fluidized bed combustion, the components are much smaller, giving utilities a capital cost advantage. Combining lower capital cost with very high efficiencies results in a highly cost-effective system with a projected cost of electricity advantage of 20% over conventional power plants, and a 10% cost advantage over the First-Generation PFBs—savings that can ultimately be passed on to the consumer.

I want to emphasize that this technology is a U.S. invention. It is considered an excellent candidate in both greenfield and repowering applications—not only for U.S. markets, but also for world markets. To date it has received excellent support from DOE, as amply demonstrated by current derivative projects, such as Wilsonville and the Clean Coal V Four Rivers Energy Modernization Project. Both of these projects are based on Second-Generation PFB technology.

Through the excellent guidance of DOE-METC and the dedication of specialists from Foster Wheeler and from our partners on the various projects, such as Southern Company Services, Air Products & Chemical Corporation, and Westinghouse, we have made excellent progress. We have successfully completed the individual component testing and are in the midst of our "Phase III" pilot plant program to test the integrated system.

The testing of the individual components confirmed the high efficiency characteristics of both the partial gasification and pressurized fluidized bed combustion processes. The Phase III pilot plant testing will now demonstrate that both of these systems will work in unison and be controllable under simulated power plant operating conditions.

Because of funding restrictions in Fiscal '95, the current test program is inadequate to support the design of the Wilsonville project and the Clean Coal V FREMP (Four Rivers Energy Modernization Project). Since this technology has shown excellent promise to become a major U.S.-developed power generation system for the domestic and world markets, we need a minimum of $2,000,000 to support the design of the Wilsonville and Clean Coal V projects. In addition, $4,000,000 is needed for testing to confirm key features of the process. Therefore, we request that the Congress appropriate $6,000,000 to coplete development of this technology.

Thank you for your time and attention.

Appendix

Advanced (Second-Generation) Pressurized Fluidized Bed Combustion (PFBC)

Advanced PFBC, sometimes referred to as the Second-Generation Pressurized Fluidized Bed Combustion, is an integrated gasification/combustion process. In this process, part of the coal energy is converted into a low-heating-value fuel gas which, after being purged of particulate matter, is used to drive gas turbines. The unreacted portion of the coal, in a form of char, is then fed into the PFBC, where the remaining portion of the energy is extracted to generate steam for the steam turbine. Schematically, the process is illustrated in Figure A-1.

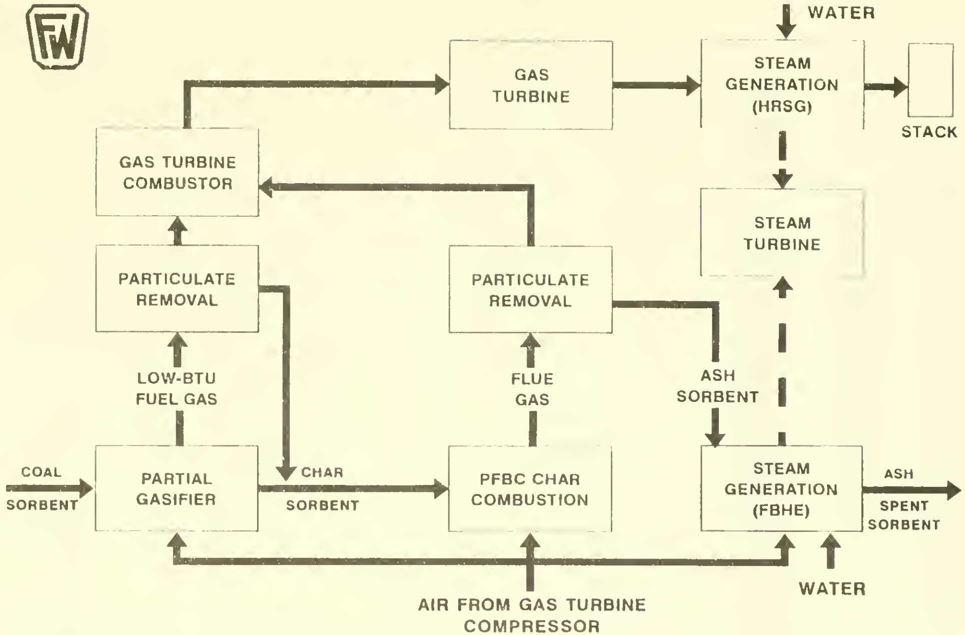
In its operation, sorbent (limestone or dolomite) is fed with the coal into the partial gasifier. The sorbent captures most of the released sulfur from the coal and thus eliminates the need for expensive equipment for removing sulfur from the fuel gas.

The char and the reacted and unreacted sorbent are fed into the PFBC, where the char is burned. The unreacted sorbent catches most of the released sulfur dioxide (SO_2). The combustion of the char is done in two stages by introducing the air needed for combustion at two levels. This staged combustion reduces the emission of oxides of nitrogen (NO_x)—an air pollutant. The oxides of nitrogen are also generated at high temperatures, when the nitrogen in the air reacts with oxygen. The higher the temperature, the more NO_x is produced. This is normally referred to as thermal NO_x. Since the combustor in this scheme operates at relatively low temperature of approximately 1600°F, as compared to the conventional coal-fired plants where combustion takes place at approximately 3300°F, the PFBC generates minimal thermal NO_x.

The hot air, used for combustion of the char, after it is cleaned of the particulate matter, combined with remaining air from the gas turbine compressor and is sent to the gas turbine combustor where it is heated to a higher temperature with the fuel gas from the gasifier prior to entering the gas turbine (somewhere on the order of 2350°F). It should be pointed out that the higher turbine inlet temperatures, the higher are the plant efficiencies in combined-cycle operation, as the modern gas turbines have higher efficiencies than steam turbines.

The steam for the steam turbine is generated in the fluid bed heat exchanger (FBHE) and in the heat recovery steam generator (HRSG) installed in the duct on the discharge side of the gas turbine. This heat exchanger removes the remaining energy from gas turbine exhaust gas.

In essence, this system combines the best features of gasification and pressurized fluidized bed combustion to yield a combined (gas and steam) cycle power plant of very high (45%) efficiency and very low emissions (substantially lower than the 1990 Clean Air Act Amendment limited).



HRSG = Heat Recovery Steam Generator
FBHE = Fluid Bed Heat Exchanger

Figure 1 Advanced (Second-Generation) Pressurized Fluidized Bed Combustion Plant

"Brighter Future for PFBC"

by Taylor Moore

[EPRI Journal, December 1993]

Mr. REGULA. Are they also pursuing this technology?

Mr. PAI. Yes, sir, in a companion way. The technology that we are developing is available to companies such as B&W and the fact is there is a very long-term high risk development. It really depends on government for substantial help.

Mr. REGULA. Was this the technology used at the Tidd plant by AEP?

Mr. PAI. This is an advanced version. The AEP Tidd plant which Foster is involved in was a Swedish invention. That has been licensed to Japan and this technology will work, along with Wilsonville, is an advanced version, which is much higher efficiency and better emissions, and as an aside, recently, our head man in the national business, along with his counterpart from B&W, was on that mission with Secretary O'Leary to China. Throughout the discussions, there was a tremendous amount of interest in gasification, and MPFB, particularly in the advanced version we are talking about.

However, at the end of the day, until and unless we demonstrate this technology at a substantial size, they are not going to sign up. So we need to get to the market first.

Mr. REGULA. How far do you think we are from commercial application?

Mr. PAI. Well, for example, we have on our books right now, Wilsonville, I will let the fellows from Wilsonville discuss that. They will be starting up in 1996 for——

Mr. REGULA. Commercial application?

Mr. PAI. No. This is an intermediate step for demonstration. A near commercial application is the Four Rivers plant which is part of clean coal V. That is in the initial stages and the application—the start-up is late 1990s, perhaps 1998, 1999 time frame.

Mr. REGULA. Is Tidd commercial?

Mr. PAI. Tidd is completed. The tests are completed. The data is available. There are now commercial offerings.

Mr. REGULA. Is theirs pressurized?

Mr. PAI. Yes. So is ours, and ours has an additional 5 percentage points of efficiency on top of Tidd's. Tidd has about 39 percent. We have 45 percent. And that is a major improvement in efficiency and cost of electricity.

I would like to underline that this is a home grown technology, supported by DOE since 1986, and as everybody knows, we are suffering a deficit, in the newspapers, through the imbalance of trade. We believe one of the main ways to reduce that deficit, aside from limiting imported oil, is to export more. Seventy percent of our business today is overseas. We need this technology as an arsenal to compete, a necessary condition.

Mr. REGULA. They need the electricity and the clean air.

Mr. PAI. In the worst way.

Clean coal is something that can sell and we have hit upon a very good win-win situation for ourselves and for overseas, and I would like to request that the committee considers a $6 million continuation of our test program in the 1996 fiscal year as a minimum. We would need about $2 million to wrap up the front end of this. The other $4 million is the finished and enhancements. Thank you very much.

Mr. REGULA. Thank you very much.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY CONSERVATION

WITNESS

F. WILLIAM KIRSCH, VICE PRESIDENT, INDUSTRIAL TECHNOLOGY AND ENERGY MANAGEMENT, UNIVERSITY CITY SCIENCE CENTER

Mr. REGULA. University City Science Center, Mr. Kirsch.

Mr. KIRSCH. Thank you, Mr. Chairman. As you know, I have appeared before you previously. I am from the University City Science Center. The particular interest I have, programmatic interest I have is the energy analysis and diagnostic center program, and my written testimony supplies the achievements for the record. I have a few remarks that I would like to add to supplement that.

It is important to realize in this, because we measure implementation of whatever we recommend, and we know the savings that are achieved over time, we are able to document the fact that there is a $6.25 return to the Federal Government through taxes on earnings for every Federal dollar that has gone into the program over the years.

But EADC, of course, is not a research and development program. It is not one that picks technological winners or losers. It merely provides proven technologies or applies proven technologies to the operations of small- and medium-sized manufacturers and applications of these technologies is in our experience beyond the knowledge or capability of these plants without external direction and guidance.

The interest I really represent, I guess, are the manufacturers and there are almost 100,000 of them that have not yet been served by EADC they are essential components in the Nation's economy. As we try to—as they try to compete in the marketplace, of course they realize they must maintain product quality and remain profitable. That becomes very difficult.

When they do, they are—when they do succeed in that, they of course are very valuable assets to their local communities, and they pay taxes and so do their workers on their income. But they still lack the capability and technique to implement many of these things on their own, and many—also, it is sometimes a question of time.

EADC has had another mission, and that is that they involve students when they serve manufacturers in 43 States across the country. We know that we can reach, in terms of territory, approximately 83 percent of the manufacturers in our size range across the country, and they do train students. These students are trained and experienced. They never have trouble getting jobs, even in today's job market. They are considered the prime examples of the skilled work force of tomorrow and of course they will earn incomes and pay taxes and that is what we——

[The statement of Mr. Kirsch follows:]

U.S. House of Representatives
Committee on Appropriations
Subcommittee on Interior and Related Agencies

March 24, 1995

Testimony Prepared

by

F. William Kirsch, Ph.D.
Vice President, Industrial Technology and Energy Management
University City Science Center, Philadelphia, PA
and
Field Manager, Western Region
Energy Analysis and Diagnostic Center Program
sponsored by
U.S. Department of Energy

This testimony is directed toward the industrial energy conservation (EADC) and waste reduction (IAC) appropriations for the Department of Energy. To support the full range of the EADC/IAC program, the amount requested for FY96 is approximately $9.1 million.

The Energy Analysis and Diagnostic Center (EADC) program serves small and medium-size manufacturers in 43 states by identifying in their plants specific energy-conserving and cost-saving measures. In addition, EADCs provide practical manufacturing experience for students of engineering and technology.

EADCs are required to report in detail on the implementation of their recommendations to each plant. On a cumulative basis, EADCs have generated almost $25 in implemented cost savings to manufacturers for every federal dollar invested in the program.

We calculate that the federal government has received about $6.25 for every federal dollar invested in the program. That return comes from taxes levied on the manufacturers' cost savings or incremental income.

How do we know those returns are correct? Recently we studied implementation results reported by EADCs from energy audits of 355 small and medium-size manufacturing plants. Then we interviewed all 355 manufacturers at their plants to learn more about their implementation.

Here is a summary of part of what we found:

- Over 92% of these plants had implemented some recommendations of EADCs and were indeed saving money, as well as conserving energy.

- About 90% agreed with all or most of the conclusions stated in their audit reports, and the other 10% agreed with some conclusions.
- Almost 60% of the recommendations in the reports had been implemented or would be within two years.
- A little more than 54% of the cost savings recommended had been implemented or would be within two years.
- The perception of principal benefits received and the reason for not implementing depend partially upon who sees the report.
- The largest perceived benefits are associated with a revelation or confirmation of energy inefficiencies and with a reduction of costs.
- Aiding decisions to install new equipment and convincing management of profitability are the two other most common benefits cited.
- The reason most responsible for not implementing an EADC's recommendations is financial risk, but unacceptable plant risk was a close second. Corporate officers and plant managers are more likely to reject recommendations for those reasons or because of schedule changes. (About 89% of EADCs' audit reports are seen by a corporate officer or plant manager or both.)
- An additional 14% of the recommended cost savings was in fact implemented more than two years after an energy audit.

Complete results of that study have been published as an ITEM report, and a summary was printed in the well-known periodical, "Plant Engineering."

To understand an EADC better, it is helpful to realize that 30 of them are located at universities and directed by professors of engineering or engineering technology. All were selected by a rigorous competition. All employ graduate and/or undergraduate students, but the director or other faculty member must be on the site during every energy audit.

By serving a region equivalent to a radius of 150 miles, these EADCs are able to reach about 84% of the 126,000 eligible manufacturers in 43 states. (There are only about 1600 eligible manufacturers in the 5 other contiguous states.)

The small and medium-size manufacturers served most recently in the west had about $31 million/year in average gross sales, employed an average of 178 persons, and averaged about $458,000 per year in energy costs. Identified savings amounted to about 11% of cost and were 67% electric and 31% natural gas in the source affected.

A few specific examples illustrate what is found among the plants served:

- A corrugated box maker in Colorado saves $19,600/yr (5617 MMBTU/yr) by replacing a gas unit heater with radiant heaters.
- A manufacturer of pre-fabricated steel buildings (and components) in Texas saves $34,550/yr by using capacitors to improve power factor. A recommendation to change electric rate schedules produced another $10,900 per year of savings.
- A producer of dimensional lumber in Oregon saves at least $28,236/yr by reducing the air/fuel ratio of the wood-fired boiler (49,952 MMBTU/yr). Controlling fan speeds to the dry kilns saves $21,937/yr in electricity cost.
- A manufacturer of fractional-horsepower motors in Missouri saves $43,359/yr in water and sewer costs by recirculating water through a cooling tower. Sectioning off the die-casting areas of the plant reduces air conditioning costs for other areas by $64,411/yr (5624 MMBTU/yr).
- A California manufacturer of transducers is able to save $117,014/yr by replacing and redesigning the air conditioning system (4634 MMBTU/yr). Replacing low-efficiency fluorescent lights saves $40,436/yr (1519 MMBTU/yr) and using optical reflectors so that many lights can be removed adds another $39,115/yr (1418 MMBTU/yr) to savings.

From first-hand experience with these plants I know that few if any of these energy-conserving or cost-saving recommendations would have been identified, analyzed, and implemented without the EADC. Small and medium-size manufacturers seldom have the time to do that work, and they are skeptical of those who offer to help for a fee or share of the savings. After an EADC has objectively done the initial work, they are willing --even anxious-- to hire contractors or equipment suppliers. But the EADC is the key ingredient.

In summary, the profitability of investing in energy conservation by small and medium-size manufacturers, aided by the federal government's support through the EADCs, is very good. Of course, manufacturers must still have access to the funds to be invested and they must have confidence that other aspects of the business climate will continue to be favorable.

The relatively high implementation rates and excellent financial returns also provide a tribute to the manufacturers' confidence in the EADCs' recommendations and to their willingness to invest when the risks appear to be well-defined and manageable.

These results also demonstrate one means to improve the future competitiveness of the nation's small and medium-size manufacturers. Given practical and specific opportunities to lower costs without sacrificing output or quality, manufacturers as a group will take many of the actions needed to achieve the gains. When the federal government strengthens manufacturers' confidence by providing the information effectively, the results can be highly beneficial to the manufacturers, to the government, and to the nation as a whole.

Mr. REGULA. Your group gets the DOE money?

Mr. KIRSCH. We are the contractor in a sense. We are one of two contractors with DOE. We are responsible for the western region of the U.S. and there is another organization that will be represented here earlier today, Rutgers University, that has the field managership of the eastern U.S.

Mr. REGULA. Does DOE, then, give you money in turn to help small companies put in conservation type practices?

Mr. KIRSCH. Not in terms of capital investments. The money we provide is for the university faculty and students on the scene to make specific recommendations, including costs and benefits, and the actual implementation cost is still up to the manufacturers.

Mr. REGULA. Right, right.

Mr. KIRSCH. In summary, what I am really asking for is not a gift so much as a further investment. There has already been a considerable investment. Not really large, but at the present time, this would amount to approximately five one-hundredths of a percent of the DOE budget is what we are looking at, and we do look of course at the return on the investment and we know these are documented because we have all the stories of dealing with each individual plant and each recommendation.

I guess the most telling aspect of the perception of value is when you ask the manufacturer, after he has had a service, not ahead of time, because he is reluctant to gamble money on the unknown, but when you ask him, when he is all done, he has nothing more to gain and you say, do you think this was a good expenditure of taxpayers' money? I have asked that question in approximately 1,800 plants across the country and at least 95 percent of them say yes.

Mr. REGULA. Okay.

Mr. KIRSCH. I am pleased to report that.

Mr. REGULA. Thank you. That is the question we have to ask on each thing that we sponsor, and I hope we can do just yes answers, too.

Mr. KIRSCH. I find that irrespective of geography, political affiliation, whatever. They look at the program and say it did this for me and yes. So thank you for your time.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE HUMANITIES

WITNESS

GEORGE L. SCHEPER, PROFESSOR OF HUMANITIES, ESSEX COMMUNITY COLLEGE (BALTIMORE COUNTY, MD) LECTURER IN INTERDISCIPLINARY STUDIES, THE JOHNS HOPKINS UNIVERSITY SCHOOL OF CONTINUING STUDIES

Mr. REGULA. George Scheper.

Mr. SCHEPER. Thank you.

Mr. REGULA. Your statement is in the record. Please summarize.

Mr. SCHEPER. Yes, I will.

Thank you, Mr. Chairman. I am here to testify on behalf of continued funding for the National Endowment for the Humanities. I have had a lot of involvement for a dozen years with the National Endowment in various roles. I have received research grants and I have also directed three national institutes for other college and university teachers. I have mentored at small schools and consulted, and also participated in these public programs, which take place primarily in environments like a little library in a county in Pennsylvania where people come on an October night to hear a book discussion on something like All Quiet on the Western Front.

Mr. REGULA. Have you been in on any of the conversations that they sponsor?

Mr. SCHEPER. These were not technically conversations, but the same idea, a more local version of that. And I know a lot of other people have come with experience from NEH, but I think my claim maybe for my five minutes here is particularly to express the community college origins of my involvement.

I have been teaching 25 years at a community college in Baltimore County. It is a school that serves first generation working class students, and also a significant group of adults and senior citizens who come back for personal enrichment.

Mr. REGULA. Vocational and transfer students?

Mr. SCHEPER. There are technical transfers and also open-ended kind of programs, certificate programs, and for the adults, it is this ongoing self-enrichment program. As long as they feel they can profit, they can keep taking those courses, and the reason I wanted to stress that is because one of the three points I tried to address in my submitted testimony is this question of elitism, because I have heard that a lot about these programs being elitist. I can tell you that after 25 years in a community college, that is about the furthest thing that you could talk about, because everybody I come in contact with is essentially coming from kind of an upwardly mobile sort of story. I don't need to stress that.

Mr. REGULA. I understand. I have had some connections with community colleges so I know exactly what you are saying.

Mr. SCHEPER. Okay.

And so universities have their own needs, I realize. They have connections to private foundations, and yet more undergraduates are taught, absolutely numbers, by community colleges than any other institution, more minority students, nontraditional students, so on, so on. And this is really the workhorse of higher education.

And National Endowment for the Humanities has been, I have to say, the great leveler. It has created a great level playing field, because I don't know of any other source or vehicle for a typical good, committed community college teacher to expect to get anything like support for an individual research grant, participate in seminars or institutes with scholars who are doing primary research.

And so among other things, I brought with me a little petition from the humanities faculty from my school in support, my wife's school, some letters of people who participate in these institutes and how it changed their life and that sort of thing. In a sense, that is, I think, my primary contribution as a witness is to stress that environment.

In the statement, I did, and I won't maybe even say anything about it now, is try to address this thing about government versus private and try to argue that that is maybe a false double bind; that it is a partnership kind of thing that we are talking about and that really every culture that we admire has had societal support of the arts, but if it was the papacy in Rome or the Medici in Florence, these weren't private sector. That is what they had before they had a representative Congress, so I think in many ways that has sometimes been misdefined.

If I have one or two minutes. My third——

Mr. REGULA. One minute.

Mr. SCHEPER. My third point was this question, can we afford? In just whatever terms you want to raise that question, can we afford to support Federal support for the humanities, and aside from allusions to Matthew Arnold propagating the Best Known in Thought, which is wonderful, Jefferson, Enlightened Citizenry, I would like to read my final paragraph if that is an acceptable thing. It is kind of a personal story and a coincidence.

Allow me to conclude on a very personal note. When the date of my appearance before you was changed from Monday to today, it now happens that this testimony is being given on my father's ninety-third birthday. We are not unhappy that I am spending this day with you rather than with him, precious as the ninety-third birthday is, because I feel that with this opportunity to speak to fundamental values, which is what these budgetary decisions are really all about, I would like to speak for my father as well.

He worked all his life at a particularly unglamorous job for a public utility; through the years of the Great Depression, provided financial security. His retirement salary was something like $5,700. But both children went to college, went to graduate school, both became college teachers, and aside from good public schools, the reason for that was his love of books. It was hard enough putting food on the table, but I can tell you that the payday that my father could not bring home, along with a pint of ice cream, a used book, a 25 cent classic of some sort, would be a very sad payday for him. He would have been ashamed ever to say we could not afford a used book as he would be ashamed today, as I would be ashamed, and I hope maybe we all would be, to say we cannot afford excellence in higher education, we cannot afford to preserve our archives, our literary heritage, that we cannot afford to disseminate the best that has been known or thought in the world, that we cannot afford what is it today, 70 cents, 70 cents per person to sustain a national endowment of humanities.

Mr. REGULA. Thank you. He has given you a rich genetic history as well as cultural.

[The statement of Mr. Scheper follows:]

Testimony before the House Appropriations Subcommittee on Interior and Related Agencies on March 24, 1995,

by Dr. George L. Scheper,

Professor of Humanities, Essex Community College (Baltimore County, MD)
Lecturer in Interdisciplinary Studies, the Johns Hopkins University
School of Continuing Studies

Mr. Chairman and Members of the Committee: I appreciate the honor and opportunity of appearing before you today to testify on behalf of continued funding for the National Endowment for the Humanities. I know that by now you have heard eloquent and persuasive testimony touching on every key issue. Like many others, I bring to this discussion a good deal of direct experience with NEH: as a recipient of research grants, as a grant evaluator, as a consultant and mentor to other institutions, as a lecturer and discussant at a variety of regional and national community programs, and as co-director of several summer Institutes for the benefit of other college and university teachers. My more important claim on your time, however, is to ask you to hear the voice of a committed teacher from the rank and file, one who has spent his whole professional life in institutions dedicated to offering open access to higher education to anyone willing and able to profit from it: first as a Woodrow Wilson Teaching Intern at a historically Black college in Tennessee sponsored by the United Presbyterian Church, secondly at a new suburban campus of a state university, and for the last 25 years at Essex Community College in Baltimore County, serving predominantly first-generation college students from working-class families, and adults and senior citizens wishing to continue their commitment to lifelong learning for self-enrichment. I mention this because the first of the three issues I wish to address is the extraordinarily misdirected accusation of elitism directed at the Endowments.

I. NEH Elitist? To the contrary, NEH has been the single most significant factor in extending support for the pursuit of excellence in humanities education to communities otherwise not served and in particular to community colleges. Community colleges are the workhorses of higher education, having more undergraduate enrollment and a higher proportion of minority and non-traditional students than four-year colleges and universities, and they do this work with far less public funding per student. For all their own financial problems, the elite universities do have their own endowments, their well-established ties to major foundations and defense contracts, and their prestige faculty enjoy appointments that "free them" from teaching to pursue research. In contrast, community college teachers have the highest workload in higher education and generally do not have access to any significant institutional support for discipline-based professional activity. In order for them to keep their teaching up to the highest standards of scholarship, to participate in professional conferences, to give papers, and to publish even a modest amount requires an extraordinary level of personal and family sacrifice.

But far from contributing to this unhealthy dichotomy of research vs. teaching, NEH puts equal emphasis on scholarship and dissemination. Thus NEH has consistently extended significant support to such key organizations as the Community College Humanities Association and the American Association of Community Colleges, and, more important, has made it possible, especially through the Summer Seminar and Institute programs, for, say, a teacher of English or foreign language or anthropology at a small college in Pine Bluff or Oneonta -- where the teaching load will be crushing and research facilities unavailable -- to compete fairly and have the opportunity to pursue a carefully screened research project independently or to spend five or six weeks with colleagues from around the country studying under the leadership of visiting scholars who are primary researchers in their fields of specialization. Such an opportunity can make all the difference between remaining vitally involved in the profession and languishing in intellectual isolation. With NEH support, these teachers can return to the classroom where that renewed vitality is passed on to their students, to their colleagues, and to the community, an impact that continues on many years and hundreds of students into the future, this is the investment every educational philosopher dreams of, and this open access is what the public commitment to higher education in America has always been about, from the establishment of the land-grant colleges, through the G. I. Bill of Rights, to the community college movement.

Through this work, the National Endowment for the Humanities significantly furthers what Lynne Cheney's favorite educator Matthew Arnold upheld as the ideal of "a disinterested endeavor to learn and propagate the best that is known and thought in the world." Would that Lynne Cheney had spent more time getting to know the teachers like Angel Amy Moreno, who returned home to Roxbury Community College in Massachusettes from an NEH Institute at Johns Hopkins on the Spanish/Indigenous Encounters in the New World, and plunged into a renewed doctoral program, introduced new courses, set up symposia, gave papers at conferences and published articles, or Kathleen Wright of Orange County community College who, as a result of the same Institute studied and learned Spanish, studied in Mexico, and gave papers on the indigenous cultures of Mesoamerica -- would that Lynne Cheney had spent her time getting to know such teachers, and better yet, their students, rather than duking it out with so-called academic superstars at trendy culture-war conferences, and then taking out her quarrels and grievances with a fashionable academic "elite" on the National Endowment for the Humanities. Perhaps then you and the general public would have been spared the ungracious disinformation campaign she has waged against the Endowment she headed with apparent enthusiasm for over six years.

II. Government or Private Support? If ever there was a false and pernicious dichotomy it is the posed alternative of either government or private support of the arts and humanities, because the real issue, is first of all and simply, whether we, the people are willing, as a society, to make a significant and meaningful commitment to the arts and humanities. Only then, can the matter be addressed of what kinds of public/private partnerships will be most fruitful. Every civilization we admire for its cultural achievements (and for simplicity's and brevity's sake, let us confine ourselves, like Kenneth Clark, to the Western tradition), has enjoyed some form of major patronage of the arts and humanities. But the role played in 5th century Athens by a citizen aristocracy, in the middle ages by the guilds and the monasteries, in Venice by a Council of merchant-nobility, in renaissance Florence by the Medici, in baroque Rome by the Papacy, or in Vienna by the Habsburgs, in our more democratic system is played by Congress, whether it has been the founding and maintenance of the Library of Congress and the National Archives, or the sponsorship of the Lewis and Clark expeditions or the Apollo program, or the running of the Smithsonian. But never have we known a great civilization to flourish where scholarship and the arts were given over to the vagaries of the marketplace, to purely or even primarily commercial considerations, rather than to significant societal patronage in some form. But are we now to cut off the intellectual and spiritual bread of life from our collective support? Is the "pursuit of happiness" to mean only getting and spending? Is it to be billions for defense, but not 70¢ for scholarship?

Comparative figures on direct public expenditures on the arts in major Western nations are appalling for the United States, which is dead last, and by a huge margin, by any reckoning; a table published for 1987 by the Policy Studies Institute (Cultural Trends, 1990) shows America's absolute arts expenditure as equal to Canada's, less than half that of France, a third that of the Federal Republic of Germany; per capita, expressed in British pounds, Germany's expenditure was 24 compared to two for the U.S! More recent data reported in the Wall Street Journal (10 Feb 1995, A6) reveal that in 1995 the city of Berlin will devote $730 million dollars ($225 for each resident) to art and culture, while the entire National Endowment for the Arts spending for 1995 will be a quarter of that, or less than a dollar per citizen. Comparable figures are not available for the humanities, but the basic fact is that the absolute level and comparative proportion are even less than for the arts.

What about the alternative of Foundation support? This Committee has already heard decisive testimony (25 January 1995) from Richard Ekman, Secretary of the Andrew W. Mellon Foundation, the major foundation supporting the humanities, to the effect that the humanities get less than 1% of all foundation giving, and in 1992 provided only 1/3 of the support generated by NEH. Back in 1988, similar testimony was provided by economist William G. Bowen, President of the Mellon and President Emeritus of Princeton, to the effect that the thirty largest foundations extended less than 5% of their giving to the humanities, and that its total was less than half that provided by NEH; of large grants (over $100,000), foundations provided only 1/4 of what came from NEH. Perhaps more important, the patterns of support were not essentially parallel: only NEH, for instance, funds programs such as the Summer Institutes and Seminars for college and high school teachers. In other NEH grant categories such as archive preservation or public book discussions and poetry readings, or projects such as the Library of America, private foundation support is negligible or non-existent, and cannot be expected to be forthcoming. Crucial as they are, private foundations do not have a public mandate.

And as for self-sufficiency in the marketplace, there's just nothing to be said except that art and scholarship are not entertainment, and that Epcot Center and theme parks are not substitutes for publicly-subsidized scholarly cultural programing, nor P. T. Barnum for the Smithsonian, nor the Learning Channel for PBS. No one who pays even the slightest critical attention to commercial radio and television and mass market publishing, and cares at all for the state of scholarship and the arts and for the cultural literacy of our citizenry could contemplate consigning our intellectual and cultural heritage to the marketplace.

III. Can We "Afford" Federal Support for the Humanities? Rather, can we afford not to extend federal support to the huamnities, and still be the functioning democracy that, as Jefferson reminded us, requires an enlightened citizenry? There's always a more pressing, pragmatic need that can be brought forward against spending anything on art and scholarship, but if we accede to that kind of pragmatist-blackmail strategem, we give up the pursuit of the kind of civilization worth preserving in the first place. With the funding decision being debated here, finally, we hold up the mirror to ourselves, for inevitably we measure ourselves by what we hold dear and what we put store by. Is the free play of the intellect and the free play of imagination something we cherish and wish to nurture, or something we fear and would willingly see die -- or, what is perhaps worse, something we are fundamentally indifferent to? Are we content, or even proud, to be the richest and most powerful nation on earth -- and the least committed, as a body politic, to scholarship and the arts in the "developed" world?

Allow me to conclude on a very personal note. By an odd coincidence, when the date of my appearance before you was changed from Monday to today, it now happens that this testimony is being given on my father's ninety-third birthday. We are not unhappy that I am spending this day with you rather than with him, precious as a 93rd birthday is, because I feel that with this opportunity you have given me to speak to these fundamental values, which is what these budgetary decisions and priorities really are all about, I am speaking for my father as well. This is in fact my birthday present to him. My father, by dint of hard and relentlessly faithful work, held on to his unglamorous job with a public utility through the terrible years of the Great Depression and provided his family with financial security through the hardest of times. His retirement salary was something like $5,700, but his two children went to college, and then to graduate school and became college teachers, out of an economic environment that held out no such paradigm. But this was essentially because of his love of books. It was hard enough putting food on the table, but I can tell you that the payday that my father could not bring home a used book, a 25¢ classic of some sort, along with the pint of ice cream, would have been a sad pay day. He would have been ashamed, really, ever to say we could not afford a used book. As he would be ashamed today, as I would be ashamed, as I hope all of us would be ashamed, if we were willing to so dishonor our Jeffersonian ideals as to say we cannot "afford" excellence in higher education, that we cannot "afford" to preserve our archives and literary heritage, that we cannot "afford" to disseminate the best that has been known and thought in the world, that we cannot "afford" -- what is it today? 70¢ ? -- 70¢ ! -- to sustain the National Endowment for the Humanities.

Thank you.

Mr. REGULA. We are going to suspend for about five minutes or whatever it takes me to sprint over and vote.

[Brief Recess.]

FRIDAY, MARCH 24, 1995.

DOE: ENERGY CONSERVATION

WITNESS

EDWARD MEYERS, D.C. PUBLIC SERVICE COMMISSION, NATIONAL ASSOCIATION OF REGULATION UTILITY COMMISSIONERS

Mr. REGULA. Sorry. We were held up here with two votes. Okay, National Association of Regulatory Utility Commissioners. Welcome.

Mr. MEYERS. Thank you and good afternoon. I am Ed Meyers. I am a public utility commissioner here in D.C. and I am representing the National Association of Regulatory Utility Commissioners, NARUC, and before commenting on three specific programs, Mr. Chairman, I would just like to say that NARUC is extremely pleased that DOE has continued its commitment to energy conservation through its request for some 170 or so energy efficiency and renewable energy programs.

This $1.4 billion for these programs will enable renewable energy technologies to be developed. We have numerous resolutions on these matters and NARUC is particularly pleased with the 27 percent increase over fiscal year 1995 levels for the energy efficiency portion of this funding, and this amount of funding would enable a variety of efficiency and renewable technologies to go forward in the building, industrial and utility sectors that NARUC has long supported.

In terms of specifics, we strongly support the $9.7 million for the IRP program funded through DOE's Office of Utility Technologies. This level of funding would enable continued progress in integrated resource planning, and IRPs, as you know, enable utilities and commissions to weigh supply options against conservation options and make sensible resource decisions.

Some 37 States for electric utilities and 16 States for gas utilities have IRPs now or are in the process of developing them. So with this funding, we have been able to make great progress, and this is big business. Electric utilities around America spend $1.3 billion right now every year for conservation programs and this translates into 45,000 megawatts saved or 90 electric power——

Mr. REGULA. Doesn't the marketplace drive that?

Mr. MEYERS. The marketplace would drive it if there was enough knowledge base to plan for this, and these efforts are enabling——

Mr. REGULA. So that is what you want to do is develop the knowledge base?

Mr. MEYERS. Yes, sir.

Mr. REGULA. With programs funded in part by DOE?

Mr. MEYERS. Yes.

Mr. REGULA. And are most of these programs a matching type thing?

Mr. MEYERS. Yes. Like in D.C., for example, we receive a little bit of funds and we add them to our own. We have managed to save four power plants that would no longer have to be built.

Mr. REGULA. By retrofit or by just reducing consumption?

Mr. MEYERS. Reducing consumption, commercial sector, residential sector.

Mr. REGULA. And you have programs that you go out and encourage your customers to be more efficient, correct?

Mr. MEYERS. Yes. In the commercial buildings, for example, we find that every building needs better lighting, more efficient lighting, and also with variable speed motors, for example, the motors are designed to just run full blast at peak all year round but they can vary depending on the needs, what the weather is, and those two items alone can save just tons of electricity.

Mr. REGULA. And these are matching programs, DOE and private, to develop a technology transfer of information to the customer base?

Mr. MEYERS. Yes. We add our own local funds. The buildings themselves add their piece, the utilities add their piece and then we get the Federal piece and it all comes together quite nicely.

Mr. REGULA. Very well.

Mr. MEYERS. And also, we——

Mr. REGULA. I am using your time.

Mr. MEYERS. No, no. I appreciate your interest, sir, really. We strongly support the weatherization assistance program. This is a $229 million budget request which enables about 116,000 low-income homes to be weatherized, and by that I mean weather stripping and insulation, new kinds of thermostats that enable people to be more energy efficient and this saves energy as well, provides some new jobs, and we strongly support the Climate Change Action Plan initiatives in the DOE budget.

There is about a $176 million request in the DOE for 50 specific program objectives that enable us to carry out the treaty provisions at Rio for solar energy.

[The statement of Mr. Meyers follows:]

BEFORE THE
UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

TESTIMONY OF THE HONORABLE EDWARD M. MEYERS, COMMISSIONER DISTRICT OF COLUMBIA PUBLIC SERVICE COMMISSION

ON BEHALF OF THE
NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS
1102 INTERSTATE COMMERCE COMMISSION BUILDING
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FISCAL YEAR 1996 APPROPRIATIONS FOR THE
DEPARTMENT OF ENERGY

MARCH 24, 1995

Chairman Regula and Members of the Subcommittee:

Good afternoon. I am Commissioner Edward Meyers of the Public Service Commission of the District of Columbia. I am also a member if the Committee on Energy Conservation of the National Association of Regulatory Utility Commissioners (NARUC), on whose behalf I am testifying today.

The NARUC, whose members include the regulatory bodies of the 50 States, the District of Columbia and the Virgin Islands, greatly appreciates the opportunity to present its views on the fiscal year 1996 appropriations for the Department of Energy's (DOE) energy efficiency programs.

Before commenting on specific programs, NARUC is extremely pleased to see that the DOE has continued its commitment to energy conservation through its request for the energy conservation and renewable energy programs that come under the direction of the Assistant Secretary of Energy Efficiency and Renewable Energy. The proposed $1.4 billion for these programs continues the commitment and strides the DOE has made to foster increased energy conservation and to develop renewable energy technologies. As you may know, there is an economic return of $3.00 to $4.00 for every dollar invested into energy efficiency and renewables in terms of reducing the need for utilities to build additional plants and lowering energy bills of households and businesses for instance. Pollution reduction also is a direct result of conserving energy. For these reasons, the NARUC is particularly pleased with the 27% increase over FY 1995 levels for the energy efficiency portion of this funding. These programs cover a variety of efficiency and renewable technologies in the building, industrial and utility sectors that NARUC has long supported. The NARUC stands ready to work with this Subcommittee and the DOE in seeing that this level of funding is realized.

My comments today will focus on the DOE's proposed budget for the Integrated Resource Planning (IRP) program, Low-Income Weatherization Assistance Program and Climate Change Action Plan initiatives.

The DOE FY 1995 budget request under the Office of Utility Technologies calls for $9.7 million for the IRP program. This level is $1 million above what the program received in FY 1995, is consistent with the level needed for continued progress in this program, and will allow for expanded activities in utility IRP.

As you know, the electric utility industry is rapidly changing as opportunities increase for competition in wholesale and, on a more limited basis, retail markets. With the passage of the Public Utilities Regulatory Policies Act (PURPA) in 1978 -- which promoted competition in the generating sector of the utility industry -- utilities have moved away from investing in large, central station generating plants and transmission and distribution systems. Diversification of the electric utility industry's energy supply, expansion of competition and greater customer choice are the current trends. IRP is one of the many offshoots of this trend. IRP provides a flexible, systematic technique for assessing all resource choices, and the DOE's IRP program provides tools and methodologies that enable electric and gas utilities, regulatory commissions and customers to make more sensible resource decisions while promoting increased energy efficiency, security and reduced environmental impacts.

State commissions are responsible for most of the decisions that would require or encourage IRP, and 37 States for electric utilities and 16 States for gas utilities have required or are developing IRP. However, more needs to be done. The DOE's IRP program assists with the implementation of IRP practices as well as disseminating the tools and data for implementing IRP, which are not fully developed. States remain active in implementing IRP; however, because utilities are poised to invest an estimated $200 billion into plants and equipment over the next 20 years, failing to remove barriers to efficient technology investments would be a detriment to our economy.

It is my understanding that the DOE intends to use the $9.7 million request for IRP for three general purposes. The first would continue to support the development of data, models, and analytical tools which enable States to consider all types of resources on an equal, consistent basis. This includes continued assistance to States and utilities toward developing planning processes that promote treatment of energy efficiency and renewable energy technologies as viable alternatives. Second, the program will research and evaluate the merits of alternative regulatory policies for electric and gas utilities by concentrating on an alternative ratemaking concept that rewards utilities for delivering energy savings to customers through the use of alternative energy sources (performance-based ratemaking). The program will also assist in identifying regulatory barriers to increase use of IRP. Thirdly, the program will be used to further enhance the Climate Change Action Plan, which I will discuss in more detail later.

In 1993, the NARUC Executive Committee called upon the Administration and the Congress to implement the language contained in Section 112 of Energy Policy Act of 1992 (EPAct), which authorized $5 million for grants to State commissions for fiscal years 1994, 1995, and 1996. The Section 112 grant program continues to have a great deal of importance for State commissions. These grants were authorized by Congress so that States commissions could comply with the requirement that they consider several IRP standards for electric and gas utility companies under their jurisdiction. Under EPAct, Congress encouraged State commissions to create economic incentives that promote a more efficient use of our energy resources.

As the Subcommittee is aware, no funds were appropriated for the Section 112 grants for State commissions in FY 1994 or FY 1995. Instead, the DOE was instructed to make funds available to the extent possible from funds that were appropriated for the IRP program program. In view of the fact that several States have yet to consider or wish to re-consider existing IRP standards for electric utilities, and that many more States have not considered IRP for gas utilities, the Section 112 grant program should be fully funded at the authorized level of $5 million for FY 1996. This small portion of the energy efficiency budget is certain to contribute to the DOE's overall goal of saving homeowners and business an estimated $20 billion over the next decade, while creating 310,000 jobs. A copy of the NARUC resolution on IRP is attached as well as tables NARUC has compiled that list whether States require IRP.

DOE Weatherization Assistance Program

NARUC supports the DOE's $229 million budget request for FY 1996 for the DOE's Low-Income Weatherization Assistance Program. Continuation of this program is essential toward ensuring that low-income homes are made more energy efficient. Also, by weatherizing 116,000 low-income homes -- the DOE's FY 1996 goal -- through the use of insulation, weather-stripping, and other energy saving devices, will generate additional jobs, as it has in the past. Finally, investments in energy efficiency return more dollars to the economy not only in the form of new jobs, but also in terms of real savings for individuals on fixed or limited incomes. This program coupled with the Low-Income Home Energy

Assistance Program (LIHEAP) provides the most effective way of addressing the tremendous challenge of ensuring that low-income households can pay their energy bills without compromising other critical household needs, including nutrition. For these reasons, NARUC requests that this Subcommittee continue to support the Weatherization Assistance Program at the Administration's requested level.

Climate Change Action Plan

Finally, I want to briefly comment on the Climate Change Action Plan initiatives contained in the DOE's FY 1995 budget request. The DOE 's $176 million request would enable the DOE to continue implementing this voluntary program's objectives through partnership with utilities, private industry and State and local governments to reduce emissions of greenhouse gases. In a 1988 resolution, the NARUC called for increased funding for both energy efficiency and renewable energy programs to address global warming. More recently, at NARUC's Winter 1995 meetings, the Executive Committee adopted a resolution that supports a national policy on global climate change that is consistent with efforts to develop cost-effective alternative energy sources and more efficient use of energy. It is encouraging to note, therefore, that the DOE is listening and responding, as it has been for a number of years now.

The Climate Change Action Plan offers three missions for FY 1996. The first initiative would involve mobilizing the renewable energy resource market with utilities, including commercialization of photovoltaic (PV) technologies. NARUC supports such efforts as articulated in the November 1994 resolution (see attached) adopted by the NARUC's Executive Committee which calls for State commissions to encourage utilities to participate in local and national collaborative efforts to commercialize PV and vigorously pursue existing, cost-effective applications of PV. The second initiative would accelerate energy efficient measures in homes and businesses. Finally, the Climate Change Action Plan offers ten different actions to be promoted in the industrial and utility sectors, including an expansion of IRP. As mentioned earlier, the IRP program is designed to promote the use of planning processes that promote the consideration of all resource options, including renewable energy technologies. Under the Climate Change Action Plan, the DOE will provide assistance to strengthen the technical capabilities of utility personnel at State commissions and public power entities by way of education vouchers and direct training assistance. This will enable personnel to apply evolving IRP techniques so that alternative resource options are fully considered when searching for ways to reduce emissions of greenhouse gases.

Thank you for the opportunity to testify, and I would be pleased to answer any questions you may have.

Mr. REGULA. You have run out of time, but I understand your situation. My power company says if I don't turn the heater on certain hours, I get a $4 discount.

Mr. MEYERS. Yes, that is certainly part of it, time of use pricing.

Mr. REGULA. Yes, I understand. Thank you.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE HUMANITIES

WITNESS

PAGE PUTNAM MILLER, NATIONAL COORDINATING COMMITTEE FOR THE PROMOTION OF HISTORY

Mr. REGULA. National Coordinating Committee for the Promotion of History. Page Putnam Miller. Putnam is a good Ohio name.

Ms. MILLER. I am Page Miller and I have a coalition of 50 historical and archival organizations, and I am here today to testify on behalf of the National Endowment for the Humanities. We would like to request the President's recommended amount of $182 million.

Mr. REGULA. You have to get it authorized.

Ms. MILLER. We realize that, and I realize that there may be some need for some trimming of the budget and we understand that, but we hope that NEH would not be singled out in any special way.

Mr. REGULA. It won't be, but it has to be authorized.

Ms. MILLER. All right.

Mr. REGULA. I am sorry to emphasize that, but it is zero without an authorization.

Ms. MILLER. Well, actually that is one of the issues that I want to speak to and my 50 organizations have worked very hard in contacting Members of Congress and we feel that we are really making some progress on this, and so we wanted to request that you put some money in for NEH, even though we do not expect authorization to be passed by the time of either the markup or by the time of the Floor vote.

Mr. REGULA. But you understand it can be stricken on a point of order?

Ms. MILLER. I understand, but we feel that if we kind of get an amount in there, that it would sort of save up a spot for us.

Mr. REGULA. Even if it is stricken?

Ms. MILLER. Even if it is stricken.

Mr. REGULA. Okay.

Ms. MILLER. I have attended all three hearings that you have held on NEH and I am aware that you have heard about the wonderful programs and many aspects. I don't want to repeat those. What I thought I would do was discuss some of the issues that have been raised at all of the hearings, and one of the first of these is whether in this time of austerity, whether the humanities should be funded by the Federal Government, and I think that in the hearing that you just had this week, that Representative Skeen really put his finger on this when he talked about the fact that the NEH has a product that is not tangible. It is understanding, and that it would be very tragic if Congress could not support understanding.

So I would also point out that if you are trying to get some dollar figures, and I don't think we always can get dollar figures, but NEH supports a lot of programs that enhance cultural tourism, and the tourism industry has found that of the people planning trips last fall, that 49 percent of them planned to visit historic sites, and this is the second largest employer of people in the United States. And so I think there are many ways in which NEH does stimulate the economy.

A second point that keeps coming up is the issue of privatization, but the dollar amount that I am hearing for that, several billion dollars, is not something——

Mr. REGULA. I think that is unrealistic.

Ms. MILLER. I think it is. Good.

Well, my third point is the issue that is being perceived that some of NEH grants are going for the types of projects that should not receive tax funding, government funding, and I would respond to this by saying that I thought that Frank Hodsell dealt with this very well in your very first hearing when he said that less than 1 percent of the grants have been inappropriate in his mind and that that is a better production rate than most corporations.

Mr. REGULA. You have had less problems than NEA.

Ms. MILLER. Yes.

A fourth point is the possibility of shifting NEH funding to block grants, and we very much support and believe that the State programs are very efficient and that they are wonderful at making grants, but we are also concerned that if this were shifted to the States, that there would not—because the State councils are not government agencies and because the arts are more visible, that somehow this money could be lost.

A fifth point is that the question keeps coming up as to whether NEH funds are a tool of what I would call the "isms," those special political agendas, and if you look at the funding, at the literacy programs, the baseball series, I think this is a distortion of what——

Mr. REGULA. You think it goes to all Americans?

Ms. MILLER. It goes to all Americans.

Mr. REGULA. Your time is up.

Ms. MILLER. Thank you very much. Appreciate your support.

Mr. REGULA. You don't believe it is elitist, then?

Ms. MILLER. Absolutely not. I didn't even include that because I didn't think you believed that.

Mr. REGULA. I asked you.

[The statement of Ms. Miller follows:]

NATIONAL COORDINATING COMMITTEE
FOR THE PROMOTION OF HISTORY

Administrative Offices 400 A STREET SE
WASHINGTON, DC 20003/(202) 544-2422

Dr. Page Putnam Miller
[illegible]

Members

American Historical Association
Organization of American Historians
Society of American Archivists
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Southern Historical Association
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Polish American Historical Association
Agricultural History Society
American Library Association–Library History Round Table
Federation of State Humanities Councils
Society for History in the Federal Government
National Council on Public History
[illegible] Archives Assembly
[illegible] can Association for the History of Medicine
Association for Documentary Editing
Midwest Archives Conference
National Association of Government Archives and Records Administrators
Federation of Genealogical Societies
Oral History Association
Mid-Atlantic Regional Archives Conf.
American Society for Legal History
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Institute for Historical Study (San Francisco)
New England Archivists
Society of Georgia Archivists
Society for Industrial Archeology
Southern Association for Women Historians
American Council of Learned Societies
Community College Humanities Association
National Genealogical Society
Urban History Association
Western Association of Women Historians

State Coordinating Committees

Alabama
Arizona
Arkansas
California
Connecticut
Georgia
[illegible]
[illegible]
Kansas
Kentucky
Maryland
Michigan
Minnesota
Mississippi
Missouri
Montana
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New Jersey
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North Dakota
Ohio
Oklahoma
Pennsylvania
Texas
Utah
Vermont
Wisconsin

Testimony of
Page Putnam Miller, Director of the National Coordinating Committee for the Promotion of History

Before the

Subcommittee on Interior and Related Agencies
of
the Appropriations Committee
of the
U.S. House of Representatives

on
March 24, 1995

I am Page Putnam Miller, Director of the National Coordinating Committee for the Promotion of History, a consortium of fifty historical and archival organizations. Mr. Chairman, on behalf of the NCC member organizations and particularly the American Historical Association, the Organization of American Historians, and the Society of American Archivists, I thank you for the opportunity to come before this committee. The 250,000 or so individuals who are members of these organizations work in small libraries and large research institutions, serve as archivists for government agencies, non-profit agencies and large corporations; they teach in community colleges, high schools, and universities. They are caretakers of the nation's historical resources and care deeply that federal dollars for cultural programs are well spent.

I am here today to request funding in FY'96 for the National Endowment for the Humanities (NEH) at a level of $182 million, the President's request. We are aware that this nation is facing a very large budget deficit and that there must be cuts in the budget. We realize that it may be necessary to trim the amount requested by the Administration; however, we urge that you not single NEH out for special cuts. In the last decade NEH funding, when measured in constant dollars, has declined significantly. The real value of the current funding request for FY'96 when adjusted for inflation will buy only 58 percent of what the NEH funding in 1979 would buy.

We urge support for NEH because we are strongly convinced that the strength of our nation and the quality of our civic life are rooted in the humanities and in an understanding of our cultural heritage. We are also convinced that private foundations, which currently give less than one percent of their funds to the humanities, cannot be counted on to provide the same level of critical financial assistance now provided by NEH.

I have attended the three hearings held by this subcommittee on funding for NEH and I know that you have heard in detail about many of the outstanding initiatives undertaken by NEH -- the modern Chautauquas, the newspaper preservation project, the program to preserve brittle books, the Library of America project, documentary history projects, the summer seminars and institutes for teachers, the support for basic research that has resulted in many prize-winning books, museum exhibits, and documentary films. You are already familiar with the many programs by which NEH works to ensure, as Sheldon Hackney frequently says, that "the humanities belong to all Americans regardless of how much they make or where they live." Thus I wish to use the time allotted to me today to address some of the issues that keep arising in these hearings.

First there is the issue of whether the humanities programs have met the fiscal burden of proof in this time that requires fiscal austerity. Representative Joe Skeen in the hearing on March 21 put his finger on the difficulties involved in justifying NEH funding when he noted that the product of NEH is understanding, which is not a tangible product. He concluded that it will be a tragic day when Congress feels it has no responsibility for furthering understanding. I would turn this question around from whether we can afford NEH to ask whether we can afford not to fund NEH. With less than 70 cents per tax payer a year, the NEH leverages significant contributions from the private sector. Additionally NEH supports an array of projects that stimulate cultural tourism. The Travel Industry Association of America found in a survey of Americans planning fall trips that over 49 percent planned to visit historical sites and 45 percent expected to attend cultural events. The travel industry is the nation's second largest employer, and the kinds of history projects that NEH funds provides important seed money for the enhancement of cultural tourism. The fiscal impact of NEH funding, however, is often hard to measure. The role of NEH in promoting citizenship that is grounded in an understanding of our history cannot be quantified, but is crucial to the very survival of the country.

A second and related issue is whether NEH could be privatized. The estimates for how much it would cost to set up a private fund to provide anything like the current level of funding are several billion dollars. Thus for all with whom I have consulted feel that in today's economic environment the possibility of creating a private fund of that size is very unrealistic. In 1993, foundations contributed only $50 million to the humanities, which is less than one-third of the current NEH appropriation.

A third issue is a concern about the funding of projects, that are perceived by some as inappropriate for tax funded grants. During this subcommittee's hearing on January 24 Frank Hodsol, former head of NEA in the Reagan Administration, acknowledged that there had been some mistakes, but he estimated the mistakes at about 1 percent which he said was a much better performance rate than most corporations. As David McCullough testified before this subcommittee on February 16, there was no suggestion that the Navy should be abolished because of the Tailhook Scandal. Both Lynne Cheney, the head of NEH during the Reagan and Bush Administrations and Sheldon Hackney are on record describing the rigorous and thorough peer review process used by NEH.

The possibility of shifting NEH funding to block grants to the states is a fourth issue that has surfaced at all of the hearings. Generally the concept of block grants is to reduce the federal role by giving the money directly to the states to manage. While the state humanities councils are efficient and effective managers of grant funds, they are not state government agencies. Thus there is a good possibility that they would not receive funds. But by far the two greatest concerns about shifting to block grants are that the national peer view system of NEH that gives its seal of approval -- that then is used to leverage private funds -- would be lost. Additionally, the major national projects, many collaborative, that NEH supports, such as the Civil War documentary and the preservation of brittle books, could not be supported by a single state.

A fifth issue is the question of whether NEH grants are the tool of the "isms" -- that is the "isms" that have their own specific agendas -- and used to advance the causes that some refer to as "political correctness." I believe that after a careful analysis one would conclude that NEH grants could not possibility be construed this way. The literacy program in Vermont, the documentary history editions, the Library of America Program, the baseball documentary -- how could any of these be perceived as catering to the agenda of the "politically correct?" Only six percent of NEH funds go to individuals. All the rest go to institutions that are non-profit and non-partisan. To picture NEH as funding the political agendas of the "isms" is simply not an accurate description of the current situation.

Finally, there are questions about the progress being made with reauthorization. We know that this committee has set a goal of appropriating funds only for those programs that have been authorized. As the director of a coalition of fifty organizations, I can say that we are contacting our members of Congress, explaining the many valuable contributions that NEH makes to advancing lifelong learning, to fostering citizenship, and to promoting basic research in the humanities. We think we are making progress. While we know that there will be no authorization legislation passed prior to the mark-up and vote on the Interior appropriations bill, we urge you to include money in your FY'96 bill for NEH. If money is not set aside for NEH at this point, all funds could be allocated to other programs, thereby eliminating the possibility of funding even if NEH is reauthorized later in the year.

In closing, I thank you for the attention and fair hearing that you have given to NEH in the last several months. I appreciate this opportunity to share with you the thinking of the fifty member organizations of the National Coordinating Committee for the Promotion of History.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE HUMANITIES: STATE HUMANITIES COUNCILS

WITNESS

LINDA CALDWELL, FEDERATION OF STATE HUMANITIES COUNCILS

Mr. REGULA. Federation of State Humanities Councils.

Ms. CALDWELL. Mr. Chairman, my name is Linda Caldwell, and I am the Director of the Tennessee Overhill Heritage Association and I am pleased to be here today to testify on behalf of the Federation of State Humanities Councils in support of the President's appropriation for fiscal year 1996.

Mr. REGULA. Do you agree with the last witness that it shouldn't all go to the States?

Ms. CALDWELL. Yes, I do.

The Tennessee Overhill is a region comprised of the southeast Tennessee counties of McMinn, Monroe, and Polk and includes the southern portion of the Cherokee National Forest.

Surrounding the forest, there are several small towns that were built by railroad mining, lumber and textile companies at the turn of the century. Like much of the southern Appalachians, resource extraction was the order of business and most of the profits were taken elsewhere. As a result, there is very little or no strong tradition of corporate philanthropy in our part of Tennessee.

In the mid-1980s, groups in the three counties became interested in documenting local history and the Tennessee Humanities Council responded to that with funding and technical assistance for a wide range of history projects. In Etowah, Tennessee, population 3,800, the council helped the Etowah's commission create a museum and restore a L&N depot.

Mr. REGULA. This is the State council?

Ms. CALDWELL. Yes.

Mr. REGULA. You get Federal money also?

Ms. CALDWELL. My organization has not received Federal money directly, no. The Federal money comes to the State humanities council and then to us. We have a peer panel review at the State that decides where that money goes.

Anyway, we created a museum there that sort of celebrates the life of ordinary folk in a railroad town. Scholars train local people to present local history, museums, books on local history, symposiums, and a lecture series became a part of everyday life in the Overhill.

Now, the result of this was that we gained a deeper understanding of how our communities relate to one another and how they relate to the outside world. It became clear to us that as we are evolving from towns dependent on one industry to towns searching for new identities that we have to seek ways to create sustainable economies at the local and regional level and capitalize on what makes our area unique and special.

One strategy that is often mentioned, as my colleague before me said, is tourism development, and we have the Cherokee National Forest there, which is an excellent resource to begin with.

We think it is an advantage to have this large tract of public land available that requires no local government money for maintenance and operations. The downside is that this land produces no tax revenue to local governments other than a 75 cent per acre payment in lieu of taxes.

Over 50 percent of one of our counties, Polk County, is owned by the Federal Government so there is a big tax base there. Our communities are enjoying a comfortable relationship with the Cherokee National Forest and they have, in fact, funded specific projects on a partnership one-to-one basis with us, but outdoor recreation is seasonal and so what we have to do is design strategies that extend the shorter seasons, move people out of the region to spend money. The opportunity to develop such a program appeared when the National Trust for Historic Preservation and the National Endowment for the Arts created the Heritage Tourism Initiative and selected Tennessee as a pilot State.

When the Tennessee Department of Tourism announced that our three counties had been selected as a State pilot area, previous successes in the arts and humanities programs was cited as one reason for our selection. Local governments got on board at that point and provided funding that allowed us to launch a heritage tourism program that is now a vital component of a regional economic development plan. And the Tennessee Humanities Council continues to help.

In Englewood, population 1,500, the humanities council helped townspeople create a museum that celebrates the history of the women who worked in the local textile mills. The museum won an award for excellence and its location in a previously abandoned downtown building has sparked other revitalization efforts.

Mr. REGULA. I think we are out of time but those are good examples.

Ms. CALDWELL. All right. Thank you very much.

Mr. REGULA. Thank you.

[The statement of Ms. Caldwell follows:]

Testimony of Linda Caldwell
Executive Director, Tennessee Overhill Heritage Association

Before the
Appropriations Subcommittee on Interior and Related Agencies

on
March 24, 1995

My name is Linda Caldwell. I am the executive director of the Tennessee Overhill Heritage Association and I am pleased to be here today to testify on behalf of the Federation of State Humanities Councils. The Federation is composed of 55 private, nonprofit state humanities councils, which support a variety of local programs in history, literature, education and other aspects of our culture and heritage. The state humanities councils are supported by the National Endowment for the Humanities--we received approximately $28 million in federal funding in FY1995--and by funds raised at the state and local levels.

Let me tell you a little about what the Tennessee Overhill Heritage Association has been able to do with a relatively small federal investment. The Tennessee Overhill is a region that is comprised of the southeast Tennessee Counties of McMinn, Monroe and Polk and includes the southern portion of the Cherokee National Forest.

Surrounding the national forest are several small towns that were built by railroad, mining, textile and lumber companies. Like much of the southern Appalachians, resource extraction was the order of business and the bulk of the profits were taken out of the region and invested elsewhere. As a result, there is no strong tradition of corporate philanthropy in this part of Tennessee. In fact, there are no corporations in many of the towns and there are few wealthy individuals capable of philanthropy.

Beginning in the mid-1980's towns and volunteer groups in the three counties became interested in documenting local history. The Tennessee Humanities Council was enthusiastic and provided both funding and technical assistance for humanities projects that ranged from books to museums. Scholars were brought in to train local people to research and present history in objective, factual and interesting ways. Books on local history appeared. Museums came into being. Symposiums and lecture series became part of the cultural life of the Overhill. Local people were proud of new skills that allowed them to expand humanities programs on their own. There was a fresh understanding of each town's history and how it related to neighboring communities. There was a firmer grasp of how our little pocket of the world fits into a broader picture. It became clear to us that as we evolve from towns dependent on one industry to towns searching for new identities that we must seek ways to create sustainable economies and capitalize on what makes our region special and unique.

One strategy that is often mentioned is tourism development. The Cherokee National Forest, with its rivers, lakes and trails offers a myriad of outdoor recreational opportunities. Although we benefit from having such a large tract of public land available that does not require local money for maintenance or operations, the downside is that this land produces no tax revenue for local governments, other than a 75 cents per acre payment in lieu of taxes. Over 50% of Polk County is owned by the federal government. Our communities enjoy a comfortable relationship with the Cherokee National Forest and work with them to attract more visitors. But outdoor recreation is seasonal. For tourism to produce optimal results we must design strategies that extend shoulder seasons, encourage people to explore the region and spend money.

The opportunity to develop such a program appeared when the National Trust for Historic Preservation, armed with a grant from the National Endowment for the Arts, created the Heritage Tourism Initiative and selected Tennessee as one of four pilot states. It was a chance to take the existing base of humanities and arts work and expand it into a regional program. I believe the training received from the Tennessee Humanities Council primed us to recognize that opportunity.

Upon announcement of the Initiative, phone calls between museums and rural communities across the three counties elicited an immediate consensus that we should apply to be one of four Tennessee pilot areas. When the Tennessee Department of Tourism announced that our area had been chosen, local success with humanities and arts programs was cited as one reason for our selection. Local governments provided funding that allowed us to launch the program.

Today, the Tennessee Overhill Heritage Association is creating a heritage tourism program that is a vital component of a comprehensive plan for economic development for the region. The Tennessee Humanities Council, along with other state and federal agencies, continue to help us. Our counties and municipalities continue to provide financial support for this expanding program.

For example, in Englewood (population 1,500) the Tennessee Humanities Council provided funds and technical assistance to help the Community Action Group create a museum that celebrates the history of the women who worked in the local textile mills. The museum won an award for excellence and its location in a previously abandoned downtown building has sparked other revitalization work that is transforming Englewood's downtown.

Today, the Tennessee Humanities Council is at work in the Copper Basin, where the Ducktown Basin Museum is working on new exhibits and interpretation that will bring the historic Burra Burra Mine to life for visitors and residents alike. This exhibit will be open in time for an international audience that will be in the area for the 1996 Olympic Whitewater Competition on the Ocoee River. Other agencies and groups are working on marketing the region during the Olympics but it is the Humanities Council that understands the need to present the Copper Basin story in an accurate and thoughtful manner. There will be no ceramic hillbillies with pointed hats and moonshine jugs at the Burra Burra Mine.

Other programs mounted in recent years include the L&N Railroad Museum in Etowah, exhibits at the Sweetwater Library and the McMinn County Living Heritage Museum. I could go on and on. Currently, the Cultural Legacy Project, funded by the Tennessee Arts Commission and National Endowment for the Arts, is working to strengthen local museums and arts facilities by focussing on traditional arts and local history. Most of these programs receive financial support from counties and municipalities where they are located. We are far from living on the federal dole.

Coalitions formed as a result of these programs are now planning for ways to achieve a sustainable regional economy. An awareness of our history and culture is essential to the developments of these plans.

We appreciate the president's support for the National Endowment for the Humanities and the State Humanities Councils as reflected in this budget. The state councils' activities, as reflected in the Tennessee programs which I have discussed, illustrate how we work at the local level--how we focus on local issues and local needs and how in doing so we contribute not only to our local culture but to our communities' well-being in general. We understand the current pressures to reduce spending; indeed, we also have the same pressures at the state and local level. However, as you set priorities we ask that you consider the important public benefits that these funds provide and understand that it is unlikely that our region can replace these funds with private dollars. Therefore, the folks in Ducktown, Copperhill, Etowah, Englewood, Riceville, Athens, Coker Creek, Reliance, Sweetwater, Vonore, Madisonville, and Niota ask that you not forget us.

FRIDAY, MARCH 24, 1995.

SMITHSONIAN INSTITUTION: CONGRESSIONAL OVERSIGHT AND ENOLA GAY EXHIBIT

WITNESS

WILLIAM M. DETWEILER, NATIONAL COMMANDER, THE AMERICAN LEGION

Mr. REGULA. The American Legion, Mr. Detweiler, the National Commander. Welcome.

Mr. DETWEILER. Mr. Chairman.

Mr. REGULA. I am a member of your organization.

Mr. DETWEILER. I know you are, sir.

Mr. Chairman, I appreciate the opportunity to present to you our views on public funding for the Smithsonian Institution. Admittedly, it is unusual for the American Legion to address itself to such an issue, but I think you will agree that the past seven months or several months have been somewhat out of the ordinary for the Smithsonian and the American Legion, alike.

I have submitted my testimony to you in writing and I hope that you will take the time to consider it. During the next few minutes, I just want to underscore and emphasize a couple of points.

First of all, let me assure you that the American Legion entered into a working relationship with the Smithsonian Institution out of a genuine concern for the welfare of the Institution as well as because of deep reservations about the accuracy and intentions of the so-called Enola Gay display.

During the course of our working relationship, and especially as it ended, it grew increasingly apparent to us that the Smithsonian Institution not only was uninformed on many of the activities of its National Air and Space Museum, but also was either unable or unwilling to exercise effective administrative control.

It is of deep concern to our members and to countless other American citizens from whom I have heard directly that so revered an institution as the Air and Space Museum was planning an exhibit as offensive and repugnant to the majority of the American people. During the course of our efforts to work with the museum officials, we learned a great deal about the museum, the curators and the background of the exhibit, and about the historic aircraft set to form the centerpiece of the exhibit. What we learned was unsettling, to say the least.

I am not here to testify against the funding of the Smithsonian Institution or to suggest a level of funding. I am here to urge this committee, and indeed the full Congress, to begin now to very carefully oversee how the funds appropriated to the Smithsonian and its museums are used in the future. It is clear that past oversight by both the Congress and the Smithsonian administration have been totally inadequate to ensure compliance with the congressional mandate and to protect both the assets and the reputation of the Institution.

Based on what we have learned, not only about the Enola Gay exhibit, but about many others set up in the past few years, the Smithsonian Institution is rapidly becoming something far different than an American museum celebrating America's people and their accomplishments.

If that is the intent of Congress, the people should be told. But more important, the people of this Nation should not be forced to provide a platform for exhibits and interpretations designed to insult and demoralize them. Those who share the Smithsonian's increasingly warped view of our people and our history should provide the Institution's funds. If it is not the intent of Congress that the Smithsonian continue on the course it seems bent on following, then the American Legion strongly urges you to establish criteria and controls to bring the use of public dollars back into line.

Finally, I wish to suggest that the Congress of the United States take immediate action to intervene in the Smithsonian's planned future of the Enola Gay. An entire generation, soon to pass from the scene, has waited nearly 50 years to see this historic aircraft displayed in its entirety and still the Smithsonian plans only to display a fractured fuselage and a few additional components. This aircraft was delivered fully operational and in pristine condition to the Smithsonian by Colonel Tibbets himself in 1949. It was allowed to rot until 10 years ago. Had it been carefully or cared for properly, the multimillion-dollar restoration now completed would have been wholly unnecessary.

Now comes the Smithsonian Secretary to complain that decreased funding will jeopardize the Institution's collections, but funding was not a problem when World War I artifacts were stolen or when the Enola Gay disintegrated. Comes now the Secretary to imply that failure to fully fund the appropriations request for fiscal year 1996 means the Air and Space Museum extension at Dulles may not be built and thus the Enola Gay may never be displayed.

I ask you to reject that preposterous notion and to provide the funds and directions to the Air and Space Museum to immediately reassemble the aircraft. By the museum's own admission, the restoration is actually complete. But the museum intends to await the construction of a suitable display facility of its own before the Enola Gay is put back together.

It is the view of the American Legion that this aircraft should be loaned or transferred to a suitable existing museum such as the Air Force Museum at Wright Patterson Air Force Base and displayed there now alongside her sister ship, Bocks Car. Again, by their own admission, and in defense of their—surrounding this aircraft with artifacts from Hiroshima and Nagasaki, the loan of valuable artifacts between the museums is a common practice and one which normally poses no threat to the artifacts.

[The statement of Mr. Detweiler follows:]

William M. Detweiler, National Commander
The American Legion
before the
Subcommittee on Interior and Related Agencies
House Appropriations Committee

March 24, 1995

Good afternoon, Mr. Chairman, and members of the Subcommittee.

As National Commander of the 3.1 million-member American Legion, I am pleased to be here today and to have this opportunity to speak to an issue that has, as few have before, excited, concerned and alarmed America's veterans. And here I mean 'America's veterans' -- not just the men and women who are members of our organization. During the past eight months, letters and phone calls have poured into my office from veterans of every description, expressing outrage and confusion over the National Air and Space Museum's original plans to display the historic B-29, Enola Gay, as part of an exhibit which called into question the wisdom, the morality and the necessity of the aircraft's atomic bombing mission -- and which overwhelmingly portrayed the aggressor as victim.

Consistently, the most frequently asked question is "why?" Why did this nation's most revered, most respected, most-visited museum undertake such an exhibit? Why was the museum permitted to proceed so far into the realm of conjecture and condemnation? Why was an exhibit devoted to international concerns over the proliferation of nuclear arms spawned in a museum dedicated to America's achievements in flight and space exploration? And why were Americans, through their tax dollars, expected to underwrite such propaganda parading as history?

The people of the United States deserve answers to these questions. As their representatives, you deserve answers. And as lawmakers entrusted with the stewardship of our wealth, you have a responsibility to ensure that the Smithsonian Institution's museums use the funds Congress provides for the purposes and in a manner consistent with the Institution's Congressional mandate.

I am not here to ask that funding for the Smithsonian Institution be withheld, or to suggest a level of funding. The American Legion is not in the business of tearing down American institutions, nor do we concern ourselves with the persons or personalities of those involved in vital national enterprises. But we are in the business of protecting and preserving our American heritage. As the battle over the Enola Gay has demonstrated, we are willing to invest our time, our money and, if need be, our reputation to fight for the principles we espouse. We believe in honesty, in integrity, in fair play. We believe in honoring the service and sacrifice of those who took up arms in defense of the nation. We believe in passing a sense of America's unique role in world history, and a sense of its greatness, on to future generations.

And we believe the National Air and Space Museum consciously and intentionally violated every one of those principles, by setting out to alter our citizen's view of themselves. We believe that those responsible for the exhibit did so in a most cynical and insensitive way: by using the very aircraft that thousands of World War II veterans credit with sparing them from death on the beaches of Japan, to suggest that their lives were purchased at the price of vengeance and racism.

If such as we believe is proven to be the case, then it is our view that the National Air and Space Museum has forfeited any legitimate claim on the generosity of the American people. The museum ceases to be an American museum and becomes something else entirely -- and as such should depend for its funding on those who share its views. It should not enjoy the support of our citizens, and indeed, evidence is mounting that this exhibit, along with several others in recent history, has resulted in a drastic reduction in Smithsonian memberships, individual and corporate contributions, and even the willingness of major contributors to be publicly associated with their donations.

On the matter of rescissions of FY 1995 Smithsonian funds approved by the House of Representatives, we encourage you to be skeptical of Smithsonian claims that such cuts adversely affect the institution's ability to care for its collections. Recent revelations of the disappearance of World War I artifacts would indicate that even with full funding, the museums are doing a poor job of protecting the collections. Certainly, the nearly $300,000 spent on the Enola Gay exhibit -- what Smithsonian Secretary Heyman himself referred to as flawed from the very beginning -- and now gone for nothing, would indicate room for improvement under tighter funding controls. And the cancellation of many of the Institution's near-term plans and exhibits suggests more funds expended for nothing. It is our opinion that tighter funding should not adversely affect the collections, but should instead impose some discipline on free-spending curators and administrators.

We see no reason to fund the Smithsonian Institution according to its whims under the thinly veiled threat that failure to do so would result in deterioration of collections or decline in the physical plant or plans, until such time that the Institution has demonstrated the will and the ability to manage its finances more responsibly.

Finally, I wish to address myself specifically to the Enola Gay, and to the Secretary's insinuation that failing to approve the FY 1996 appropriations request would further jeopardize the planned NASM extension at Dulles International Airport. Perhaps that is true. But there is no need whatsoever for the Enola Gay to repose unreassembled and undisplayed until some distant date in the future when the now twice-delayed facility is complete. The Enola Gay has undergone a complete restoration, at far in excess of the necessary cost had the aircraft been properly cared for when it was delivered, fully operational by then-Col. Paul Tibbets, in 1949. The extensive restoration is described in a NASM video, and the original exhibit contained a description of the restoration in which the aircraft was described as completely restored, but not re-assembled. The exhibit of the Enola Gay now planned for the Air and Space Museum will include 56 feet of the forward fuselage, perhaps an engine or two and some other components.

However, is it the intent of Congress that after 46 years, this aircraft repose another ten or more years -- until all those alive when she flew are gone -- in either pieces or obscurity? Does the Congress feel the same sense of shame about this historic aircraft that the Smithsonian Institution seems to have felt for nearly half a century?

The American Legion encourages the Congress to direct, and provide funding specifically for, the loan or transfer of the Enola Gay to another federal facility with the will and the means to display it properly without commentary and controversy. We respectfully suggest that Enola Gay join her sister ship "Bocks Car" at the Air Force Museum at Wright Patterson Air Force Base near Dayton, Ohio, or failing that, at any of the other facilities that have expressed an interest in doing so. We are aware that Smithsonian officials have rejected this option, but we also believe that NASM's misuse of the aircraft and the Smithsonian's historic disdain for it disqualify officials there from having the final say. Just as those officials have argued that loan and exchange of artifacts between museums is a common practice -- so held in defense of their efforts to surround the Enola Gay with artifacts from Hiroshima and Nagasaki -- we would argue that loan of this particular artifact to another American museum poses no threat to the aircraft.

I urge you to fund, and the full Congress to direct, such a loan of the aircraft. There is an entire generation soon to pass from the scene which has waited long enough. In this, the fiftieth anniversary of their victory over the enemies of freedom, it would be a fitting and inexpensive tribute. It would protect this artifact from the Smithsonian's feared deterioration due to underfunding. And more important, it would be a gesture of good faith by the Institution. For the Smithsonian to unselfishly make this aircraft available for our people to visit, immediately, would go a long way to restoring the American people's faith in an institution described by Secretary Heyman in testimony before this subcommittee as "A unique and revered institution which represents the best of America and its people. The Smithsonian is the mirror in which we, as Americans, see our history and culture from the past, in the present, and towards the future."

We have been as seen in a mirror darkly, lately, as held up by the Smithsonian. It is time that our vision of ourselves as a people be cleared. You have that opportunity, and I encourage you to take it.

Again, thank you for hearing our views on this subject.

Mr. REGULA. We are out of time, but I am very interested in your statement and I wish you would leave your card. I may want to talk with you about this.

Mr. DETWEILER. Be happy to.

Mr. REGULA. I have some similar sentiments.

Mr. DETWEILER. Yes, sir. Thank you very much.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: COAL AND NATURAL GAS RESEARCH AND DEVELOPMENT

WITNESS

BERNARD S. LEE, PRESIDENT, INSTITUTE OF GAS TECHNOLOGY

Mr. REGULA. The Institute of Gas Technology.

Mr. LEE. Good afternoon, Mr. Chairman. I am Bernard Lee, President of the Institute of Gas Technology. The IGT's MILDGAS technology project has been discussed before this subcommittee this year, both in the fiscal year 1995 rescissions and in the hearings with the Department of Energy witness for 1996 appropriations. I want to thank Mr. Yates, even though he is not here, for his strong support of our project, and to you, sir, for your cooperation——

Mr. REGULA. Is this the one in Illinois?

Mr. LEE. Yes, sir.

Mr. REGULA. The Senate took it out.

Mr. LEE. Yes, I think there is further discussion to be taking place, and we hope that the strong views expressed by the House will prevail in the conference. I appreciate this opportunity to come and clear up the confusion about what our project is.

I have three points to make. First and foremost, the MILDGAS project is not a process to convert coal to synthetic oil. Starting with high sulfur coals from the Illinois basin and Appalachia, the primary product of the MILDGAS project is a solid char which can then be briquetted to form coke for the steel and metallurgical industry. Because traditional coke ovens have growing difficulties in complying with the Clean Air Act requirements, the United States is importing more and more quantities of coke from overseas.

Mr. REGULA. I am very familiar with the problem.

Mr. LEE. So making coke via the MILDGAS process can be totally contained, and emission control can allow us to make coke from secure domestic resource and preserving American jobs. The MILDGAS facility can be built near the mines and the product shipped out.

Second point I want to make is the MILDGAS technology is different from another mild gasification process aimed specifically at western coal. That process, called ENCOAL, is a fine process but its purpose is to upgrade western coal to a boiler fuel. ENCOAL does not produce coke and it does not operate on eastern bituminous coal.

And the third point I want to make is that the DOE does support other technology to improve steel making. Some of these developments only reduce the amount of coke, but the coke ovens are still required. Others aim at completely new processes that use no coke, but these involve very major investments, which is difficult for the steel industry. MILDGAS, however, will simply change the source of the coke and require no modifications of the steel making process.

Our MILDGAS project, as you know, is at a scale now of a one ton per hour project and is under construction at the Illinois Coal Development Park, near Carlinville, Illinois. This project, selected by DOE in open competition, is supported strongly by cost sharing from the non-Federal sector. Our team is led by the Kerr McGee Coal Corporation and we will complete the construction this September using the Federal funds appropriated through 1995. And then we will be ready to begin operation.

What we need is additional appropriation of $3.2 million in Federal support for fiscal year 1996, again matched with 20 percent non-Federal sector cost sharing to conduct a one-year operational program to produce enough coke for testing and to obtain the engineering data necessary for the design of a commercial MILDGAS plant. This project then and this contract will be complete by the end of fiscal year 1996.

Mr. Chairman, the other comments I have with regard to other IGT projects are in the testimony, which I won't repeat, but I do want to say that I want to support one of the testimonies coming up next from M-C Power Corporation for its molten carbon fuel project, which is based on IGT's technology. We urge your support for the funding necessary to keep this vital technology on track of its schedule.

Mr. REGULA. Thank you very much.

[The statement of Mr. Lee follows:]

Testimony of Dr. Bernard S. Lee, President
Institute of Gas Technology (IGT)
Subcommittee on Interior
House Committee on Appropriations
March 24, 1995

Mr. Chairman, IGT's MILDGAS technology has already been the subject of considerable discussion before this subcommittee this year, both in discussions of FY95 rescissions and hearings with Department of Energy witnesses for FY96 appropriations. I want to thank Mr. Yates for his strong support of our project, and you, Mr. Chairman, and other members of this subcommittee, for your cooperation and support, as well.

In the discussions to date, there has unfortunately been a fair amount of confusion over the focus and details of MILDGAS, and I appreciate the opportunity to appear before the subcommittee today to explain why we think MILDGAS is an exciting, market-oriented technology.

First, let me clarify the primary product and market focus of MILDGAS. Along with providing a new use and market for Illinois Basin and Appalachian high sulfur coals, we are also solving a significant economic and environmental problem for our nation's iron and steel industries.

Pending emissions requirements of the Clean Air Act of 1990 are rapidly limiting our country's ability to produce the coke necessary for steel industry blast furnaces and foundry cupolas. Current coke making technologies cannot be economically modified to comply with Clean Air Act requirements, and every time an aging coke oven is shut down it is not being replaced, and we are steadily shifting to imported coke. Although that may be an acceptable solution for now, every increase in our reliance on imported coke makes us more vulnerable to foreign competition in international, highly competitive iron and steel markets.

The primary product of IGT's MILDGAS technology is a solid char that can then be briquetted into form coke, an environmentally sound replacement for current coke production. Because MILDGAS uses a pressurized, contained vessel to produce that char, we can easily control and lower the emissions we produce, well within the levels accepted by the Clean Air Act.

Studies have shown that MILDGAS can be an economically strong technology. Along with the briquetted char for form coke, we will also produce a slate of liquid tars, pitches and chemical feedstocks. Although those liquids may, in some cases, replace oil products, these are secondary markets for MILDGAS that help add to the economic viability of the technology. Throughout the project, we are working with a team of industry advisors to help optimize and modify the overall balance of products for the best range of marketability.

A primary purpose of the current project is to produce sufficient quantities of char for briquetting so that the MILDGAS form coke can be tested and proven in an actual foundry setting, and so that the liquids can be tested by the private sector for optimal uses and marketability, as well. Those product quality and performance verifications are necessary to leverage private sector investment for the future commercialization of MILDGAS.

A 100-pound-per-hour MILDGAS unit was originally developed, along with other mild gasification technologies, through support by DOE. Although the original intent of that DOE program was to use mild gasification to develop marketable liquids from coal, technology developments and changing markets suggested that the more economical focus for mild gasification would be the solid, rather than liquid, products. In FY91, DOE conducted an open solicitation to select one mild gasification technology that would then be scaled up to a 1-ton-per-hour scale. IGT's MILDGAS technology, focused on the production of char for briquetting into form coke, was chosen for that scale-up, with a development team headed by the Kerr-McGee Coal Corporation. That scale-up, now under construction at the Illinois Coal Development Park near Carterville, Illinois, is the project supported by the federal funding discussed this year by this subcommittee. Major components of the MILDGAS unit are currently on-order and are being fabricated for delivery and installation at the Carterville site. Although this project has suffered unexpected and complex delays since its inception in FY91, activity from this point on will happen quickly, with complete construction expected by September. After a brief period of equipment shake-down and testing, there will be approximately one year of operation of the MILDGAS equipment, using a broad range of coals and producing large quantities of the MILDGAS chars and liquids for product testing by private industry. That year of operation and testing will also provide the design and engineering data necessary for the final scale-up of MILDGAS to an economic, commercial size. Federal funds appropriated through FY95, together with 20% non-federal cost-sharing, are adequate to complete the construction and installation of the MILDGAS equipment, but an additional $3.2 million in federal support, again matched with 20% non-federal cost-sharing, will be necessary in FY96 to complete the operation and product production and testing. This project and contract will then be complete, and no further federal funding will be necessary for this scale-up and testing.

Our $3.2 million FY96 request is a 36% reduction from the FY95 appropriation level for this program, and includes a voluntary $800,000 reduction in the original testing schedule in order to keep this final request as low as possible without jeopardizing the production and proof of MILDGAS chars. In keeping with trends we understand are being currently advocated in Congress, we have also voluntarily offered to repay federal support for this project from future MILDGAS profits, through a formula perhaps similar to those negotiated in some current Clean Coal Technology program projects.

I know, Mr. Chairman, that this subcommittee has been told a number of times this year that this technology is a low priority either because DOE is already demonstrating at least one other "mild gasification" technology, ENCOAL, or because DOE has other programs that focus on the needs of the steel and foundry industries.

If it made sense to limit federal R&D to only one item of a generic form of technology -- one turbine, one alternative fuel vehicle, one fluidized bed coal combustor -- then perhaps that would make sense. If you want DOE to do more than that, however, and focus on developing specific, problem-solving technologies, then MILDGAS merits support.

Although the ENCOAL project, for instance, is certainly a "mild gasification" technology, operating at low temperatures and pressures similar to MILDGAS, ENCOAL's value is limited to the use of only Western coal, and its focus is to make those coals a higher value product in the same boiler fuel market they now serve. ENCOAL has been, and we hope will continue to be, successful, but its success will have virtually no positive impact on the future use of Illinois Basin and Appalachian coals that MILDGAS will convert to form coke, nor will it have any impact on helping US steel and foundry installations meet Clean Air Act standards without becoming more reliant on imports and more vulnerable to international competition.

We hope, as well, that DOE will have success in supporting other technologies that will improve the economic competitiveness and environmental compliance of our nation's steel and foundry industries. Most technologies under development, however, focus either on modifications to reduce, but not completely eliminate the need for coke, or for developing completely new iron and steel-making processes that need no coke at all. In the former, coke ovens are still required, and, in the latter, mojor mew capital investments are required. MILDGAS, on the other hand, would simply be a change in the source of coke, requiring no modifications to current blast furnaces and cupolas.

MILDGAS has an additional benefit in the production of new industry jobs in parts of our country where they are strongly needed. As noted earlier, MILDGAS will use Illinois Basin and Appalachian coals whose markets as boiler fuel are slowly declining in this country. Those market changes, coupled with increased mechanization in the mining industry, are causing severe job and economic losses in parts of our nation where there are few good alternatives. Although current domestic coke production generally is done at or near the steel mills and foundries, commercial MILDGAS production facilities can be built near the mines, bringing high-quality industrial jobs to those areas.

Before concluding my testimony, Mr. Chairman, I would like to comment briefly on two other IGT technologies that are, unfortunately, currently on the list of FY95 rescissions now approved by the House.

Prior to this subcommittee's mark-up of FY95 rescissions under your jurisdiction, IGT was very close to completing negotiations with DOE for the award of a competitively chosen contract to advance IGT's technology, in cooperation with Argonne National Laboratory (ANL), on planar solid oxide fuel cells. IGT's approach combines our internal manifolding technology, successfully demonstrated for molten carbonate fuel cells through M-C Power, and a lower temperature solid electrolyte with innovative soft seals and electrical contacts, currently being developed at ANL. By replacing expensive ceramic separator plates with metal components at much lower cost, this approach was evaluated by DOE as having the best potential for achieving significant reductions in the cost of producing power from solid oxide fuel cells. This subcommittee had supported federal funding for planar solid oxide fuel cells in FY93, FY94 and FY95, and, although the FY93 and FY94 funding was not available for our contract, the $1.7 million appropriated in FY95 would have supported a two year effort at IGT and ANL to develop and improve our planar alternative, providing data and experience that then would have been used to measure the value of a continued program using this approach. IGT has a long history of high quality development in fuel cells, and we were eager to begin this new effort. We hope to continue to work with DOE and the Congress so that, if this $1.7 in FY95 money is ultimately released from the pending rescission process, we would be ready to begin work immediately.

This subcommittee has also proposed the rescission of a portion of DOE's current natural gas-to-liquids program, an area where IGT is one of a number of competitively-chosen contractors doing DOE-sponsored R&D. DOE's gas-to-liquids program is focused on economic methods to convert natural gas to environmentally superior liquid transportation fuels. The House-proposed FY95 rescission will still allow that program to continue at a lesser scale, and we would encourage this subcommittee to continue to support DOE's gas-to-liquids program at adequate levels during your considerations of FY96 spending.

IGT would also like to urge Congressional support for the proposed Industries of the Future activities directed through DOE's Office of Industrial Technologies. This approach to targeted cooperation between government and industry offers valuable opportunities to focus partnerships on specific, industry-identified needs that have nation-wide impacts. In addition, we also request the subcommittee's support DOE's Advanced Environmental Control Technology work on NO_x destruction.

During this hearing this subcommittee will also be receiving testimony from the M-C Power Corporation, the Gas Research Institute (GRI) and the American Gas Association (AGA).

M-C Power was created by IGT for the sole purpose of developing the manufacturing and marketing capabilities necessary for the commercialization of the IMHEX© molten carbonate fuel cell originally developed by IGT. M-C Power has formed an aggressive, dynamic team, with the Bechtel Corporation providing engineering services and Stewart & Stevenson providing the balance-of-plant assembly, packaging and marketing. The M-C Power team has recently installed a 250kW stack, complete with the balance-of-plant equipment necessary for full operation and testing, at UNOCAL's Fred Hartley Research facility in Brea, California. Actual operation of this demonstration facility, the largest molten carbonate fuel cell demonstration to date in the world, will begin soon. IGT strongly supports the testimony you will hear from M-C Power, and we urge your strong support for the funding necessary to keep this vital technology moving forward on its current, aggressive schedule.

IGT also works closely with GRI and AGA to analyze sound R&D directions and technologies needed to improve our nation's ability to take advantage of the economic, efficiency and environmental advantages of the use of our domestic natural gas resources. In cooperation with GRI and AGA, we urge your strong support of their R&D recommendations.

Mr. Chairman, again, I appreciate the opportunity to appear before this subcommittee this year, and I would be happy to answer any questions you or other members of the subcommittee may have.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: ENERGY EFFICIENCY

WITNESS

JOHN GARVELINK, NATIONAL ASSOCIATION OF PLUMBING-HEATING-COOLING CONTRACTORS

Mr. KOLBE [presiding]. Next we have the National Association of Plumbing-Heating-Cooling Contractors, John Garvelink.

Mr. GARVELINK. Thank you, Mr. Chairman, Members of the subcommittee. Thank you for allowing me to present testimony today. My name is John Garvelink, and I am a mechanical contractor from Colorado Springs, Colorado. I am presenting testimony on behalf of the National Association of Plumbing-Heating-Cooling Contractors, the NAPHCC, and the Thermo Distribution Coalition.

My testimony today is to request fundings through the DOE's Office of Technologies for the purposes of developing and promoting a national consensus standard for rating the energy efficiency of heating and air-conditioning distribution systems and to provide education, technology transfer to consumers, the industry, and the public and private sectors. We seek today an appropriation of $1.6 million.

NAPHCC is a founding member of the Thermo Distribution Coalition. We believe the thermo-distribution industry needs a unified effort with input and participation from all segments of the industry and the public to effect real change in the way thermo-distribution systems are designed and installed.

One of the largest and most overlooked energy saving opportunities in the building is to improve the efficiency of the duct work and the piping systems. More than 10 percent of all energy consumed in the United States economy is used to produce heating and cooling that passes through these distribution systems. The state-of-the-art in heating and cooling distribution is currently lagging far behind the building envelopes, the lighting and the equipment.

The Federal Government, through DOE, has spent upwards of $50 million since 1993 and more than $250 million since the mid-1970s developing more efficient equipment. Since 1970, the Federal Government has spent more than $1 billion on more efficient buildings.

Energy efficient equipment in buildings can only be as efficient as the system used to distribute the energy as heated or cooled air and water. The millions of dollars already spent by the public and private sectors will be wasted if time and resources are not devoted to improving the distribution system.

The average efficiency of the duct system has been found to be between 60 and 70 percent. This implies that the thermo-distribution systems in the United States experience more than $15 billion worth of heating and air-conditioning energy losses each year.

Thermo-distribution systems today are as inefficient as the furnaces were 30 years ago. This is an awkward time to request Federal funds be appropriated for research to resolve this situation, however consumers and our economy cannot afford to waste the $15 billion each year. With sufficient funds, the DOE can initiate efforts to improve efficiency by means of applying research, technological development, demonstration and education.

Field data is demonstrating that both building envelopes and equipment are more efficient for newer homes. When the ducts in these new homes are tested, they are found to be no different than the efficiency between the old ducts and the old homes. Houses are getting better, distribution systems aren't.

Information published by Ashray suggests that the typical system efficiency included both furnaces and duct losses are less than 50 percent. Even with an 85 percent efficient furnace, the overall system efficiency is still only 49.9. In other words, even with high efficient furnaces, less than half the fuel ended up in the House as heat. This 50 percent or more that is lost in the heating process could be dramatically cut with more efficient thermo-distribution system.

Energy ratings for furnaces and air-conditioning make it possible to explain to the consumer why they might want to buy a more efficient piece of equipment. However, this is not the case in duct systems, even though the payback to the homeowner is likely to be quicker than that associated with more efficient piece of equipment.

Duct efficiency is not just a matter of energy savings. There are significant comfort and health issues also. Among these are the quality and quantity of the air produced. We must avoid the sick building syndrome.

In the past, there have been significant barriers to the adoption of high efficiency systems. Through the appropriation of funds, a DOE-directed project should focus on several areas, the development and standard test method, field evaluation and demonstrations of recommended practices and procedures, new technology as well as education and training.

At the culmination of this program, the tools and technology will be in place to upgrade the distribution efficiency from 60 to 70 percent range typical today to a minimum of 85 percent in existing buildings and 95 percent in new buildings. This will save $10 billion annually at current energy prices and much more in the future.

Our request for the $1.6 million for the purposes of developing and promoting these activities and programs could save billions of dollars annually for the U.S. economy and your constituents. NAPHCC and the Thermo Distribution Coalition believe improved thermo-distribution systems will result in significant energy savings, a cleaner environment, lower operating costs for consumers, and a higher value added installation, a win/win situation.

Mr. KOLBE. Thank you very much, Mr. Garvelink. We appreciate your testimony here today.

[The statement of Mr. Garvelink follows:]

Testimony of John Garvelink
on behalf of
the National Association of Plumbing-Heating-Cooling Contractors
and the Thermal Distribution Coalition
before the House Committee on Appropriations, Subcommittee on the Interior
March 24, 1995

Mr. Chairman, members of the subcommittee, thank you for allowing me the opportunity to present testimony today. My name is John Garvelink and I am a mechanical contractor from Colorado Springs, Colorado. I am presenting this testimony on behalf of the National Association of Plumbing-Heating-Cooling Contractors (NAPHCC) and the Thermal Distribution Coalition. My testimony today is to request funding through the Department of Energy's Office of Building Technologies for the purposes of developing and promoting a national consensus standard for rating the energy efficiency of heating and air conditioning distribution systems, and to provide education and technology transfer to consumers, the industry, and the public and private sectors. We seek today an appropriation in the amount of $1.6 million dollars.

NAPHCC is a founding member of the Thermal Distribution Coalition. We believe the thermal distribution industry, including installers, manufacturers, and designers, needs a unified effort, with input and participation from all segments of the industry and the public, to affect real changes in the way thermal distribution systems are designed and installed.

One of the largest, and most overlooked, energy saving opportunities in buildings is to improve the efficiency of the ductwork and piping systems that distribute thermal energy from heating and cooling equipment to the building spaces being conditioned. More than 10% of all energy consumed in the United States economy is used to produce heating and cooling that passes through these thermal distribution systems.

The state of the art in heating and cooling distribution is currently lagging far behind that for building envelopes, lighting, and equipment. Since 1993, the federal government, through the Department of Energy, has spent upwards of $50 million dollars, and more than $250 million dollars since the mid-1970s researching and developing more efficient equipment. Since the 1970s, the federal government has spent more than $1 billion dollars on more efficient buildings in general. Energy efficient equipment and buildings, however, can only be as efficient as the system used to distribute the energy as heated or cooled air and water. The millions of dollars already spent by the public sector, coupled with untold millions from the private sector, will be wasted if time and resources are not devoted to improving thermal distribution systems.

The average efficiency of duct systems has been found to be between 60 and 70 percent. This implies that thermal distribution systems in the United States experience more than $15 billion dollars worth of heating and air conditioning energy loss each year.[1] Thermal distribution systems today are as inefficient as furnaces were thirty years ago. Besides being inefficient, these systems are often beset by other problems that produce poor thermal comfort and sometimes threaten the health of the building occupants.

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[1] A summary of the explanation is given below, however, a more detailed computation is available.

A. Total primary energy used to heat and cool residential and small commercial buildings via thermal distribution systems **6.67 Quads**. (Primary energy is calculated as the gas or oil used on site, or in the case of electricity, the fuel used at the power plant. Note than one (1) Quad equals 10^{15} Btu, or the amount of energy in 170 million barrels of oil or 500 average-sized H-bombs. The United States as a whole uses 80 Quads of energy per year for its entire economy.)

B. Value of this energy equals $7.50 dollars per million Btu, or **$7.5 Billion Dollars per Quad**. This is equivalent to natural gas at 75 cents per therm, oil at about $1 a gallon, or electricity at 8 cents per kilowatt-hour (with powerplant losses accounted for).

This is an awkward time to request that federal funds be appropriated to the Department of Energy to research and resolve the situation I have just described. I admire your work over the past two and a half months, and the fortitude with which this committee has faced the federal budget crisis. However, consumers and our economy can't afford to waste $15 billion dollars each year because of inefficient distribution systems.

In order to get a better picture of where we are and where we need to be, I'll provide a brief history of thermal distribution research. In the early 1970s, a period generally remembered for low energy prices, the primary concern of those developing thermal distribution systems was convenience and comfort. System efficiency was a secondary consideration.

The mid-1970s to the early-1980s were the formative years of energy efficiency research, as indicated by federal funding through the Department of Energy. Unfortunately, the concept of distribution system efficiency was still in its infancy, and was left out of the departmental structure. With no formal departmental channel to advocate support, system efficiency was ignored, but equipment and envelope efficiency programs flourished. The idea that duct system losses might be important remained in the shadows.

In the late-1980s and early-1990s some duct system research was funded by state and regional concerns. Federal funding for distribution efficiency was still continually zeroed-out. A reason for the Department's lack of support can be attributed to our industry's indifference and our failure to endorse or advocate this important funding; funding instead went to other concerns which had representatives "at the table" when the funds were being divided up.

This brings me to the present state of affairs, when our industry, through such initiatives as the Thermal Distribution Coalition, has fully recognized the importance of distribution system efficiency. This enlightenment, however, unfortunately comes at a time when Congress' emphasis is to cut government spending and zero-out programs, not initiate new ones.

With sufficient funds, the Department of Energy can initiate efforts to improve the efficiency of this critical link in both residential and commercial buildings by means of applied research coupled with technology development, demonstration, and transfer. Proposed activities include: demonstration of efficient existing technologies; development of more-efficient technologies; and development of the tools needed to promote these technologies in the market. All of these activities will need to include close coordination with each of the various industries associated with thermal distribution in buildings.

Data from the field demonstrates that both building envelopes and equipment are more efficient for newer homes, those built after 1980, than for older ones. When the ducts in these houses are tested, however, it is found that there is no difference in efficiency between old ducts and new ones. Houses are getting better;

C. Fraction of this energy that is lost in thermal distribution systems (primarily in forced-air systems): a range of 20% to 35% has been derived from available data, with the 35% applying to forced-air systems where the ducts are located in unconditioned spaces such as attics and crawl spaces. The 20% would apply to hot-water heat and to forced-air systems where the ducts are in partially conditioned spaces such as a basement. An overall average value of about 30% can be used.

The product of 6.67 Quads (A) multiplied by $7.5 Billion Dollars per Quad (B) multiplied by 30% loss (C) equals $15 Billion Dollars in losses.

ducts aren't. In fact, many industry experts would say that some systems are even worse today because poor duct systems have a cumulatively negative effect when coupled with high efficiency heating and air conditioning equipment -- distribution system losses are disproportionately worse on more efficient variable-capacity equipment because the losses force the equipment to operate in its high -capacity low-efficiency mode.

Information published by the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) suggests that typical system efficiencies, including both furnace and duct losses, are less than 50%. Most people don't realize how inefficient a system can be even after an efficient furnace is installed. With a run-of-the-mill furnace (75.5% seasonal efficiency), the overall system efficiency, after duct losses, averages 46.1%. With a furnace that is the highest efficiency (85.5% seasonal efficiency) available on the market, without going to a condensing system, the overall system efficiency is just 49.9%.[2] In other words, even with a good furnace, less than half the fuel ends up in the house as heat. This 50% or more that is lost in the heating process could be drastically cut with a more efficient thermal distribution system.

As a mechanical contractor over the past 22 years, I have found that most consumers do not understand how their duct systems work or how those systems can be costing them money on their utility bills each month. The fact that there are standard energy efficiency ratings for furnaces and air conditioners makes it possible to explain to a consumer why they might want to buy a more efficient piece of equipment. However, this is not the case with duct systems, even though the payback to the homeowners is likely to be quicker than that associated with a more efficient piece of equipment.

Although I am glad to have the results of past research which shows that there is a problem, I think it is more important to find solutions to the these problems. I would like to see new technologies that make it cheaper to install energy efficient distribution systems, and as a contractor, I would like to have a simple way to demonstrate the benefits of these more efficient systems. I think that the general idea of developing new technologies and consensus standards, and then demonstrating those technologies and standards, would greatly benefit consumers and the industry.

Duct efficiency is not just a matter of energy savings. There are significant comfort and health issues also. Among these are:

- the tendency of equipment to provide inadequate comfort if duct losses is severe;
- the induction of deadly radon gas into a duct system with significant return leaks in the basement;
- the induction of flue gases, which can include carbon monoxide, into a duct system with unbalanced leakage that results in a depressurized mechanical room;
- the induction of toxic volatiles into a duct system that has return leaks in a space where such materials are stored, such as a garage.

Each of these examples can easily be remedied with a properly designed and installed duct system.

In the past, the significant barriers to adoption of higher-efficiency systems have been: a basic lack of accurate data on thermal distribution performance; inadequate tools for evaluating more efficient alternatives; and a lack of appropriate market forces that would allow builders and building owners to take credit for improved systems. This initiative would directly address each of these barriers. The results of the proposed research would be incorporated into professional practice for design engineers via professional-association and industry sponsored manuals, building energy codes and standards, and utility demand-side management programs.

With appropriate funding, a Department of Energy directed project should focus on four specific areas: the development of a standard test method, field evaluations and demonstrations of recommended practices and procedures, new technology, and education and training.

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[2] 1992 ASHRAE Systems Equipment Handbook, Chapter 29 (Furnaces), Table 7.

Standard Test Method A standard test method for thermal distribution efficiency is already in development under the aegis of ASHRAE. However, this effort needs to be publicly supported with funding from the Department of Energy. The Department of Energy can play a lead role in development, spot testing of alternative approaches to the standard, and field validation of the draft test method, which can be done in conjunction with the public review process.

Field Evaluations and Demonstrations In both new construction and existing housing, much can be done even with existing technology. For new housing, placement of ducts within the conditioned space (or alternatively, use of appropriately insulated hydronic systems) can provide distribution efficiencies approaching 100%. In existing housing, the thrust would be to alert homeowners and industry professionals to the opportunity for overall system improvement that exists when a furnace fails. By repairing the duct system and then sizing the new furnace appropriately, synergistic improvement in overall system efficiency can be obtained with good cost-effectiveness since the cost of duct repair will be modest compared to the cost of a new furnace.

New Technology Certain aspects of thermal distribution practice are ripe for a quantum leap in effectiveness. One example is the repair of leaky ducts. Currently, the recommended practice is hand application of a mastic sealer to cracks and the use of mastic and fabric to cover larger holes. A spray-in aerosol to patch cracks and small holes would greatly simplify duct repairs and the repair-by-hand method can be limited to larger, easier to find ruptures.

Education and Training Course materials, training manuals, videos, and consumer-oriented information are needed to assist industry in promoting recommended procedures, both at the practitioner level and in terms of consumer awareness.

At the end of this program, the tools and technology will be in place to upgrade distribution efficiency from the 60%-70% range typical today to a minimum of 85% in existing buildings and 95% in new buildings. This will save well over $10 billion annually at today's energy prices, and most likely much more in the future.

Our request for $1.6 million dollars is not a lot of money in the grand scheme of the federal budget. However, your appropriation for this proposed program could eventually save the U.S. economy, and your constituents, $15 billion dollars annually. We can't afford not to fund these activities.

The National Association of Plumbing-Heating-Cooling Contractors and the Thermal Distribution Coalition believe that improved thermal distribution systems will result in significant energy savings, a cleaner environment, lower operating costs for consumers, and higher value-added installations -- a win-win-win-win situation.

Thank you. I appreciate your time and am willing to answer any questions you might have.

Appendix A: Duct Diagrams
Appendix B: Letters of Support
Appendix C: "Measured Performance of Relocated Air Distribution Systems in an Existing Commercial Building," by Merle Guyton, *ASHRAE Member*

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: COAL COMBUSTION BY-PRODUCTS

WITNESS

FRANK DERBYSHIRE, DIRECTOR, UNIVERSITY OF KENTUCKY CENTER FOR APPLIED ENERGY RESEARCH

Mr. KOLBE. We are going to try to move on, since we have fallen behind here.

Next we have the University of Kentucky Center for Applied Energy Research, Dr. Frank Derbyshire.

Mr. DERBYSHIRE. Mr. Chairman, my name is Frank Derbyshire actually, it is a D, not a K, Director of the University of Kentucky Center for Applied Energy Research.

My testimony is concerned with issues relating to the utilization and disposal of solid waste from coal combustion. And I would like to say at the start that even with the current emphasis on reducing Federal spending, I would like to ask the committee to consider the need to continue support for basic research in priority areas that affect our national prosperity and economic development. And I refer here to the protection of low-cost electrical power from coal and to resolving the problems that are faced by the coal industry and the utilities in the management of solid waste from coal combustion.

The present situation is that we have an increasing volume of solid waste, a diversity in the types of waste that are produced which affects their disposal, a limited market for their commercial use, and changes in the logistics of waste disposal, in that the capacity of existing landfill facilities is now becoming exhausted.

There are difficulties in permitting and siting new facilities, and disposal costs are increasing. Just to give some background, conventional coal combustion produces different forms of ash. The current production of these solids is somewhere in the region of about 80 million tons per year, about 25 percent of which is sold as a cement additive or in other applications and the rest is landfilled. This situation is now altered due to the implementation of the Clean Air Act, for reasons that I have expanded upon in my written testimony.

One example is that the retrofitting of coal furnaces with new burners which reduce the remissions of nitrogen oxides, has altered the quality of the ash that is produced, which affected its marketability, especially for ash derived from eastern bituminous coal, with the net effect that more material now has to be disposed of.

In addition, technologies for sulfur dioxide removal from flue gases produce new types of solid waste, quite different ones. And the problems of their utilization and disposal are different to those of conventional products.

Currently we have about 16 million tons per year of these materials produced, and the amount is expected to increase to around 30 to 40 million tons by the end of the decade. Disposing of these faces problems are further aggravated by the fact that the older landfills are getting to end of their useful life. New ones are difficult to establish because of permitting difficulties or opposition from citizen groups, and the cost of disposal in new landfills can be higher by as much as a factor of 10 over existing ones, due to the implementation of new regulations for handling wastes of all kinds.

A combination of these factors has led to a trend where coal producers are now being required to accept the return of combustion waste for disposal in coal mines, a trend that is known as haulback or back-hauling, depending on who actually says it. This isn't necessarily a bad thing.

Back-hauling can offer some attractive solutions to the disposal of certain types of solid waste in the remediation of abandoned mines, provided that we know enough about the wastes and how to deploy them safely and beneficially. For example, recent research in Ohio and West Virginia has demonstrated that flue gas desulfurization materials can be used to control acid mine drainage and to enhance revegetation of abandoned mines. Some of our own work in collaboration with Mining Technologies, Inc., a coal mining equipment manufacturer, CONSOL Research and Development, the Department of Energy and the Ohio Coal Development Office, is looking at the use of flue gas desulfurization materials as a structural fill for abandoned highwall mines.

We feel that there are three basic approaches to addressing these problems. The first is logically to minimize the amount of waste produced. And in that region, we advocate continued support for basic research and development in advanced coal cleaning technologies, which reduces the amount of mineral matter in the coal, and in novel technologies for flue gas cleanup that will reduce the generation of solids.

The second and third approaches are to try and identify new markets for combustion waste and to locate disposal sites that are environmentally and publicly acceptable. Both of these approaches depend upon finding more about the wastes that are generated. In these areas, we propose that the Department of Energy effort for the next fiscal year is increased to about $6 million to include efforts that will investigate the effects of low nitrogen emission burners on the chemistry of the waste produced and the development of technologies to improve their quality and marketability; to look at the development of new uses and products from different times of desulfurization waste, and from solids produced by other clean coal technologies; and lastly, to look at the environmental impacts of material properties that relate to the suitability and appropriateness of using coal combustion wastes in abandoned mines.

Mr. KOLBE. Thank you very much, Dr. Derbyshire. It is interesting work. We appreciate your testimony here today.

[The statement of Mr. Derbyshire follows:]

Testimony on Coal Combustion Byproduct Disposal and Utilization Research

The Subcommittee on the Interior, House Committee on Appropriations

by
Dr. Frank Derbyshire, Director
University of Kentucky, Center for Applied Energy Research
March 24th, 1995

My testimony is concerned with the Department of Energy's fossil energy research and development appropriations that affect the coal research program, and particularly where they relate to the utilization and disposal of coal combustion solid wastes. The current administration's budget request reduces the expenditure for coal research by almost $49 million dollars. While the need to reduce federal spending and address deficit problems is apparent, we urge the Committee to consider how much we can afford to cut, recognizing that the federal government has a vital and continuing role in supporting basic research, and especially in those issues that can facilitate the environmentally acceptable use of coal for power generation.

Both our present national prosperity and our future economic development are dependent upon the availability of low cost energy, most of which is derived from coal. In 1994, approximately 57% of electrical power was produced from coal. Neither natural gas nor oil can compete in domestic abundance or low cost. The average cost per million Btu paid by utilities in 1994 was $1.36 for coal, versus $2.47 for oil and $2.29 for natural gas. In addition, the cost of coal-derived energy has decreased by almost 20% over the last decade, due entirely to increased productivity in the coal industry.

It is clear that environmental concerns present the principal constraints on the use of coal. In recognition of this problem, the Clean Air Act has introduced regulations to limit the emission of pollutants, and over the past few years, the Department of Energy has made a considerable investment to demonstrate Clean Coal Technologies for the more efficient production of power with minimum risk to the environment.

At the same time, there has been relatively little support for fundamental research that can lead to new and improved, low-cost technologies for the control of air emissions and for the reduction and management of solid wastes. These issues are interdependent, and concern problems that are of immediate as well as future concern to the utilities and coal producers. The remainder of my testimony is devoted to the subject of combustion solid waste management.

Combustion Solid Wastes

Coal combustion results in the production of solid byproducts. In the past, these were essentially in the form of the fly ash, bottom ash, and slag, all of which are produced from the mineral matter in the coal. About 27% of these materials is currently sold for use in cement and other applications, while the remainder is disposed in landfills. The present situation is that there are now more types and greater quantities of solid waste, and its disposal is both problematic and costly, creating a burden on the coal producers and the electrical utilities. Approximately 96 million tons of fly ash and flue gas desulfurization (FGD) materials are produced each year, and the quantity is projected to continue to increase. The growth in the volume of solid waste is attributable principally to measures to conform to the Clean Air Act in reducing emissions of oxides of nitrogen and sulfur.

The Impact of Low NO_x Burner Conversion

The retrofitting of pulverized coal combustion furnaces to adopt burner technologies which reduce NO_x emissions has had a major, and largely unanticipated, impact on the utilization of fly ash. Essentially, the configuration of older furnaces is not fully compatible with the new burner technologies, with the result that the coal is incompletely combusted and carbon is carried over with the fly ash. There are two important consequences: a loss of fuel value which, for a 200 MW furnace, can cost between $100,000 and $250,000 per year; and a change in the quality of the fly ash. The higher carbon content of the fly ash adversely affects its marketability as a cement additive, where it commands a value of about $60 per ton. We have studied several low NO_x burner conversions in Kentucky. Each one has resulted in a major increase in carbon carryover and has rendered the fly ash unmarketable.

In addition, the density of the fly ash is significantly reduced. In one example, when a utility in the Northeast converted to low NO_x burners, the ash density was lowered from more than 70 lbs/ft^3 to less than 50 lbs/ft^3. The greater volume of waste has shortened the life of the available disposal facility from over 15 years to approximately 6 years, and ash handling costs have increased by about 60%.

Currently, we are in Phase I of burner retrofitting, which affects about 180-200 furnaces and could influence the utilization of 5 to 8 million tons of fly ash per year. Although the NO_x targets for Phase II are not yet defined, the number of furnaces affected will be much larger, perhaps as many as 2000. If this issue is not resolved, there is the possibility that much of the fly ash currently used in concrete will be lost to the market and will add to the existing problems of waste disposal.

Other ash properties may also be affected. For example, because the degree of vitrification of the ash is changed, the elemental leaching characteristics of the material may be affected, thus affecting its safe disposal characteristics.

The Impact of Flue Gas Desulfurization Technologies

The implementation of the Clean Air Act has also impacted the volume of combustion waste products by increasing the amounts of both wet and dry flue gas desulfurization products. Currently about 80 million tons of fly ash are produced per year and about 16 million tons of FGD materials. The amount of FGD materials is expected to increase to about 30 to 40 million tons per year by the end of the decade. The composition of these byproducts, and the problems of their utilization and disposal, are quite different from that of fly ash.

Solid Waste Disposal Problems

There are a number of problems with the disposal of both conventional and new types of combustion solid waste. The EPA made a final regulatory determination, in 1993, that it is inappropriate to regulate conventional coal combustion byproducts as hazardous wastes. However, byproducts from Clean Coal Technologies were not included in this determination. The final regulatory ruling on the classification of these materials will not be made until 1997 and will be based on the information then available. The ruling will affect more than 170 fluidized bed combustion units that are already in operation and that utilize primarily eastern U.S. bituminous coals. A negative outcome will have a disproportionate impact on coal producers in the eastern coal producing states, and could adversely affect the implementation of Clean Coal Technologies. Consequently, it is imperative to develop coherent and reliable information on the disposal characteristics of this class of byproducts in order to establish a sound scientific basis for the EPA's determination.

Resolving the issue of waste classification will only partially ease the problems of disposal. Many older power plants are located in urban centers where adjacent solid waste disposal areas are very expensive or impossible to develop because of permitting difficulties or opposition from citizen groups. New plants, primarily independent power producers, or IPPs, face even more difficult situations with permitting and high disposal costs. The cost of disposal in new landfills is much higher than that of existing landfills due to new, more stringent state regulations for handling wastes of all kinds. New landfill sites are typically required to have liners, and in many cases, leachate control systems. The use of a facility with a single clay and synthetic liner can add from $11 to $20 per ton to the cost of disposal, and the cost for a double lined fill with a state-of-the-art leachate collection system can be as much as $35 per ton. This is much higher than for existing facilities. In Kentucky, for example, the total cost is in the range of $2 to $4/ton. Thus, a new landfill can add an effective surcharge of 10 to 15% per ton of coal, in addition to the penalties already imposed by the cost of technologies necessary to meet the requirements of the Clean Air Act.

The exhaustion of existing landfill facilities, rising disposal costs, and the increased volume of waste arising from the factors already described, have brought new pressures on the coal industry. Over the past three years there has emerged a new and very significant trend in coal combustion byproduct management, in which utilities have required the coal suppliers to accept the responsibility for returning these materials to the coal mines for disposal. The trend, known as "Haulback" or "Back Hauling" has developed quite rapidly. From a single case in 1991, this solid waste management option has become an issue in a substantial proportion of coal purchase contracts. The effect of this strategy is to force the mining industry and coal mining states such as Kentucky, Ohio, West Virginia, and Pennsylvania to accept wastes that are generated out of state.

At the same time, back hauling offers some attractive solutions for the disposal of certain types of solid waste, principally FGD materials. Research in Ohio and West Virginia has already demonstrated that FGD materials can be put to beneficial use in controlling acid mine drainage and enhancing revegetation. Our own organization, in collaboration with Mining Technologies Inc., a coal mining equipment manufacturer, CONSOL Research and Development, Inc., the U.S. Department of Energy and the Ohio Coal Development Office, is working on the use of dry FGD materials as a structural fill to stabilize spent highwall mines, as well as their use as feedstocks for synthetic aggregates. Given the present situation, our concern is to ensure that the wastes disposed in mine sites are deployed safely and beneficially.

Research and Programmatic Recommendations

We recommend three basic approaches to addressing the disposal of solid combustion by-products:
waste minimization;
identifying new markets for combustion byproducts;
and locating disposal sites that are environmentally and publicly acceptable.

With respect to waste minimization, we advocate continued support for research and development in advanced coal cleaning technologies, and in novel, low cost techniques for flue gas clean-up that circumvent the generation of additional solid byproducts. In this context, we endorse the role of the DoE in the recently formed Appalachian Clean Coal Technology Consortium, consisting of major universities in Virginia, West Virginia, and Kentucky, and we encourage its continued support.

To address the second and third of these areas, we recommend for FY96 a $6 million dollar coal byproduct research strategy to support efforts in solid waste utilization and disposal that includes:

> a program to investigate the effects of low NO_x burner conversion on the chemistry of solid wastes, and to develop technologies to improve their quality and marketability;
>
> research to develop new uses and products from wet and dry FGD materials, and from byproducts from other Clean Coal Technologies; and,
>
> an investigation of the environmental impacts and geotechnical characteristics relating to the suitability and use of various coal combustion byproducts in mine applications to address the pressing issues relating to the management of back hauled wastes.

The Commonwealth of Kentucky recently passed legislation (Senate Bill 266) allowing the disposal of coal combustion byproducts at mine sites, and setting environmental standards for disposal. During the next session of the General Assembly of the Commonwealth, Kentucky will consider legislation to appropriate new funds to support R & D efforts in solid waste utilization, and in back hauling. We believe, because of the scope of this problem, that Kentucky's initiative should be matched on the national level.

We further recommend that Congress strengthen efforts in coal combustion byproduct research at the U.S. Department of Energy, and expand their scope to include the utilization of all types of solid wastes.

Friday, March 24, 1995.

MINERALS MANAGEMENT SERVICE: OFFSHORE LEASING AND DRILLING MORATORIUM

WITNESS

ANN WHITFIELD, FLORIDA PUBLIC INTEREST RESEARCH GROUP

Mr. Kolbe. Florida Public Interest Research Group, Ann Whitfield.

Ms. Whitfield. Thank you, Mr. Chairman. My name is Ann Whitfield. I am here today representing 11 environmental groups, including among others the Natural Resources Defense Council, The Sierra Club, the American Oceans Campaign, and my own group, Florida PIRG.

We are here today to request that this committee continue the current moratoria on offshore leasing and drilling around the country. We strongly urge the committee to renew this moratoria for four reasons. First, the moratoria protect environmentally sensitive and economically important coastal and marine areas. The areas encompass many of the Nation's coastal and marine crown jewels, from the rocky headlands of the Washington and Oregon coast, to North Carolina's outer banks, to the Florida Keys.

These places are valued by environmentalists, tourists and local residents. They are also valued by local businesses. The North Carolina Outer Banks Chamber of Commerce opposes drilling. The Key West Chamber of Commerce opposes drilling. The Pensacola Beach Chamber of Commerce opposes drilling.

Secondly, fortunately there is not a lot of oil and gas in these moratoria areas. In fact, if you continue to protect these areas, you will still leave over 75 percent of the protected oil and gas offshore resources open and available.

Third, there are many sensible alternatives to opening up these areas. In addition to our usual emphasis on the vast potential of renewables and efficiency, I would like to point out that in 1992 a DOE sponsored study estimated that 24 billion barrels of oil, more than seven times the amount of oil estimated to lie within the moratoria areas, can be recovered from existing fields.

Last but not least, the breadth and depth of support for this moratoria is unprecedented. Support spans the political spectrum to an extent rarely seen in environmental debates today. For example, in Florida, the governor, the cabinet, the State house, all 23 of our diverse and often conservative congressional delegation, and both Senators, oppose leasing off the coast.

Politicians of every stripe support this moratoria because the local people don't want this activity and their elected officials know it. Take my own delegation. Veterans, like the dean of the Florida congressional delegation, Bill Young, who serves with you on the full committee, and political newcomers, like freshman Jim Scarborough, just elected from northwest Florida, stand together on this issue. Senator Connie Mack, a committed ideological conservative, is a champion of this cause, right alongside of the more prerogative Senator Bob Graham.

Members who get leagues of conservation voters scores of 4 to 94 respond stand together on this one issue. This is not a partisan issue, nor is it a business versus the environment issue.

In closing, this committee has a 13-year history of standing for protection of the Nation's crown jewels, protecting these areas for the local people, the local businesses, for the many tourists and visitors and for future generations. I urge you to continue that tradition.

Mr. KOLBE. Thank you very much, Ms. Whitfield.

As always, this will be a contentious issue, you can be sure, in the full committee when we get to it. Thank you very much for your testimony.

[The statement of Ms. Whitfield follows:]

Testimony of

The Natural Resources Defense Council
The Florida Public Interest Research Group
Sierra Club
Greenpeace
American Oceans Campaign
Conservation Law Foundation of New England
Friends of the Earth
LegaSea (North Carolina)
National OCS Coalition
Oregon Natural Resources Council
Southern Environmental Law Center

on the

Outer Continental Shelf Oil and Gas Program

before the

Subcommittee on Interior and Related Agencies
Committee on Appropriations

March 24, 1995

Prepared by:

Lisa Speer
Senior Policy Analyst
Natural Resources Defense Council

Delivered by:

Ann Whitfield
Executive Director
Florida Public Interest Research Group

Mr. Chairman and Members of the Committee:

The Natural Resources Defense Council, Florida Public Interest Research Group, Sierra Club, Greenpeace, American Oceans Campaign, Conservation Law Foundation of New England, Friends of the Earth, LegaSea(North Carolina), National OCS Coalition, Oregon Natural Resources Council, and Southern Environmental Law Center welcome the opportunity to testify today on the federal government's Outer Continental Shelf (OCS) oil and gas development program. Our organizations have been involved in OCS issues for many years, and we appreciate the opportunity to present our views.

Our testimony today addresses the continuation of the existing moratoria on leasing and drilling around the country, which we strongly support. The moratoria prohibit leasing off the east and west coasts of the United States, in Alaska's Bristol Bay and in Florida's Eastern Gulf of Mexico. In addition, the moratoria prohibit any drilling on existing leases in Bristol Bay and the Florida Keys.

Background

The existing Congressional moratoria support the action taken by President Bush in 1990 to protect California, Oregon, Washington, Maine, Massachusetts, Rhode Island and the Florida Keys region from further leasing, and the Keys from any drilling, until after the year 2000. The Congressional moratoria cover these states as well as others that were inexplicably left out of the President's protective action, including Bristol Bay, the mid- and south-Atlantic states and Florida's Eastern Gulf of Mexico. We strongly urge the Committee to renew these moratoria based on the following considerations.

1. The moratoria protect environmentally sensitive and economically important coastal and marine areas.

From California's Big Sur to Florida's Gulf beaches, from Alaska's fishery-rich Bristol Bay to the Jersey shore, the moratoria protect vital natural resources upon which the economies of coastal communities depend. The areas subject to moratoria encompass many if not most of the nation's coastal and marine crown jewels, including North Carolina's world-famous Outer Banks, Maine's spectacular coastline, the Florida Everglades, and the rocky headlands, pristine beaches and waters that support salmon and other economically crucial fisheries of the Pacific Northwest. Less famous, but equally important to the healthy functioning of marine and coastal ecosystems, are the numberless coastal wetlands, quiet marshes, fish spawning and nursery areas, seagrass beds and other critical habitats that form much of the nation's coast protected by the moratoria.

Threats posed by oil and gas development most notably include oil spills, particularly from the transportation of oil. But spills are not the only environmental concern related to OCS development. Offshore oil and gas development brings with it very substantial discharges of toxic pollutants, including heavy metals, aromatic hydrocarbons and radioactive pollutants, along with significant amounts of air pollution. The onshore infrastructure associated with offshore oil or gas can have very significant effects on the coastal zone. For example, OCS pipelines crossing coastal wetlands in the Gulf are estimated to have destroyed more coastal salt marsh than exists in New Jersey through Maine.[1] Finally, the industrial character of offshore hydrocarbon development, be it oil or gas, is often inconsistent with the existing economic base in many coastal communities of tourism, coastal recreation and fishing.

2. There is broad political consensus in support of existing moratoria.

Opposition to offshore activity in the moratoria areas spans the political spectrum to an extent rarely seen in environmental debates today. For example, in Florida, the Governor, the State Cabinet, the State House of Representatives, all 23 members of the Florida delegation to the U.S. House of Representatives and both U.S. Senators have opposed leasing off that State's coast. In Alaska, both Senators and House Natural Resources Committee Chairman Don Young have opposed offshore oil activity in Bristol Bay, along with every Governor of Alaska since leasing was first proposed in Bristol Bay in the 1970s. From Maine to California, coastal states governed by Republicans and Democrats alike have expressed concern about and opposition to offshore oil and gas activities.

3. Continuing the existing moratoria will not threaten the nation's energy security or impact petroleum product prices

Renewing the FY 1995 moratoria will not have any perceptible impact on the nation's energy security, or the price or availability of petroleum products. This is because the oil and gas in the moratoria areas estimated by the Interior Department represents less than one quarter of the nation's total OCS resources.

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[1] Boesch and Rabalais, eds. The Long-Term Effects of Offshore Oil and Gas Development: An assessment and a research strategy. A Report to NOAA, National Marine pollution Program Office at 13-11.

Thus, the vast majority of the nation's OCS (and total) oil and gas will remain available for lease to the oil industry if the moratoria are continued. With respect to price and availability, the real price of gasoline has declined dramatically since the first moratoria were imposed in the early eighties and no significant supply disruptions have occurred.

With respect to gas development in the moratoria areas, Interior Department officials have pointed to "significant" natural gas resources off the coasts of Florida and North Carolina. However, we note that according to the Department's estimates of undiscovered economically recoverable gas, the Eastern Gulf of Mexico contains just 2.2% of the OCS gas and six-tenths of one per cent of the nation's total gas. The entire OCS from New Jersey to the Florida Keys contains less than 5% of the nation's OCS gas and 1.3% of the nation's total gas according to the Department's estimates. Forgoing development of these areas will not jeopardize the nation's natural gas future.

4. Many energy alternatives are available

Alternatives to opening up the moratoria areas are numerous. For example, in 1990, the Department of Energy estimated that up to 15 billion barrels of oil could be recovered from existing fields under present economic conditions with currently available and proven technologies, if a well-designed enhanced recovery technology transfer program were implemented. This represents almost three times the amount of oil estimated by the Department to lie within the moratoria areas.[2] In 1992, another DOE sponsored study estimated that some 24 billion barrels of oil -- more than seven times the amount of oil estimated by MMS to lie within the moratorium areas -- can be recovered from existing fields using existing technology, assuming a $20/barrel price level.[3] These alternatives, along with other measures such as increasing the fuel economy standards for automobiles and other efficiency improvements, should be pursued before any consideration is given to developing hydrocarbons in the moratoria areas.

In summary, the moratoria protect some of the nation's most environmentally sensitive and economically important coastal and marine areas while allowing leasing to go forward in areas containing the overwhelming majority of OCS hydrocarbon resources. We strongly urge this committee to renew the moratoria.

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[2] Department of Energy, 1990. Oil Research Program Implementation Plan at 4.

[3] DOE, 1992. An Assessment of the Oil Resource Base of the United States, Oil Resources Panel at 1.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: FUEL CELLS

WITNESS

JOHN NIMMONS, ALLIANCE TO COMMERCIALIZE CARBONATE TECHNOLOGY

Mr. KOLBE. The Alliance to Commercialize Carbonate Technology, John Nimmons. Welcome, Mr. Nimmons.

Mr. NIMMONS. Good afternoon, Mr. Chairman, members of the committee. I thank you for the chance to speak with you. My name is John Nimmons. I am appearing as managing director of the Alliance to Commercialize Carbonate Technology, also known as ACCT.

ACCT is a working alliance of utilities and industry created to help bring molten carbonate fuel cells to the commercial market by the year 2000. Our members are potential users, installers and purchasers of molten carbonate fuel cells, and they include some of the Nation's largest and most innovative electric and gas utilities, natural gas pipelines and others. ACCT's principal focus is the IMHEX molten carbonate fuel cell technology under development by M–C Power and the development team that Paul Tarman will later describe for you.

The purpose of my testimony this afternoon is to stress ACCT's very strong support for continued molten carbonate fuel cell funding for 1996, and specifically for funding at a level that will include M–C Power's request, the funds requested by M–C Power to continue its development effort on schedule. I have filed written testimony, so I won't repeat that, but I will try to stress a couple of points.

First, very quickly, just to make it clear that our members feel that there are very powerful benefits to molten carbonate fuel cell technology. I think you are familiar with the technology. The benefits are very well-established in the area of emissions and efficiency, so I won't belabor that. The point I think that is really worth stressing here, though, is that utility R&D dollars which have been available to support this technology in the past are going to be much more difficult to come by over the next several critical years in the development of the technology. And I will explain why in a moment.

But I should mention that the utility industry so far has and it will continue to provide substantial cost sharing for the work that M–C Power and the other manufacturers are doing. For example, M–C Power has an upcoming demonstration at San Diego's Miramar Naval Air Station. Private industry is funding about two-thirds of the cost of that $18 million demonstration. So our members and others in the industry are fully committed to the technology.

But the problem is that electric utilities in particular, which comprise many of our members, are in the throes of convulsive changes that you are probably well aware of. As you know, the industry is moving rapidly from a historical structure of a vertically integrated monopoly in which a single entity provides generation, transmission and distribution services, to a disintegrated industry in which generation and possibly transmission will be separated from the remaining distribution monopoly.

Generation will be entirely deregulated and subject to intense competition among generation suppliers, which, and this is the critical point, may or may not include traditional utilities as we know them. Reacting to these developments, our members and other electric utilities around the country have begun to slash R&D spending on advanced generation technologies. Not because of diminishing interest in the technology, I think to the contrary, our members, as evidenced by their activity in ACCT, think this is going to be a very dynamic area, a very important new market.

But the reason they are slashing is because of enormous uncertainty in the regulatory arena as to whether they can recover R&D expenses from rate bearers, which they always have in the past but may not be able to in the future. If generation is deemed a competitive enterprise, the utility commissioners are saying that ratepayer money shouldn't support it, but that should be left to whoever is doing the generation. The problem being that utilities aren't sure whether they will be in it or out of it.

So in this environment, which is likely to continue over the next couple of years, while the industry redefines itself, it is going to be more and more difficult to raise the kinds of private cost sharing that we have in the past. And so although we see this as a temporary problem, until the industry redefines itself, it is a very critical one. And it comes at a very critical time for M–C Power and the other multi-carbonate fuel cell technology. So now more than ever it is important to continue Federal funding at the levels that have been requested.

The second and last point really is the next several years are critical, as I mentioned, in building industry confidence in this technology. We have—one of our major missions at ACCT is to do that. An important element of building that confidence is to make sure that the developers stay on schedule.

They can only do that if funding continues at the levels that they have requested it. If it doesn't stay on schedule, the industry begins to look at it as a failure of the technology rather than as a cost or as a funding problem. So the fastest way to move this into the private sector is to build the kind of confidence that we are been trying to build.

[The statement of Mr. Nimmons follows:]

ACCT

ALLIANCE TO
COMMERCIALIZE
CARBONATE
TECHNOLOGY

TESTIMONY OF JOHN T. NIMMONS
MANAGING DIRECTOR
ALLIANCE TO COMMERCIALIZE CARBONATE TECHNOLOGY
SUBCOMMITTEE ON INTERIOR APPROPRIATIONS
March 24, 1995

Mr. Chairman and Members of the Subcommittee, my name is John Nimmons. I am submitting this testimony as Managing Director of the Alliance to Commercialize Carbonate Technology ("ACCT"), which strongly supports continued funding for the development of molten carbonate fuel cells ("MCFCs") in FY 1996.

ACCT is a working alliance of utilities and industry, created to help bring MCFC technology into commercial markets by the year 2000. Its members are potential purchasers, installers and users of MCFC power plants. They include leading electric and gas utilities, natural gas pipelines, and industries representing all regions of the nation. ACCT's principal focus is the IMHEX MCFC power plant under development by the team of M-C Power Corporation, the Institute of Gas Technology, the Bechtel Corporation, and Stewart & Stevenson Services, Inc. (the "Development Team").

ACCT wishes to make the following points before this Subcommittee, each elaborated further in the testimony that follows:

1. MCFCs offer unique advantages over other electric generation and cogeneration technologies for emerging applications of great interest to ACCT member companies, and to many of their industrial, commercial, and residential customers.

2. Considerable development remains to be done to reduce MCFC costs and establish MCFC performance and reliability for commercial applications.

3. Private sector dollars historically used to fund promising energy technologies through the high-cost, high-risk phase now confronting MCFCs, are declining rapidly in the face of intense competitive pressures and nationwide utility restructuring.

4. Mobilizing remaining private financial support depends critically on MCFC developers' ability to remain credible by meeting development schedules based on previous federal commitments, and requiring continuing federal support for the next several years.

1. MCFCs Offer Unique Advantages Over Other Generation and Cogeneration Technologies for Tomorrow's Utility and Industrial Applications

MCFCs offer dramatic efficiency and environmental advantages over both conventional generating technologies and other types of fuel cells for emerging applications of increasing importance to utilities and industry.

Mature MCFC power plants should be capable of converting fuel to electricity at efficiencies of up to 60%. This compares with about 50% for today's most advanced combined cycle plants in hundred-plus megawatt, utility-scale applications, and only 30-40% for conventional central station power plants. However, few if any U.S. utilities any longer plan to build large-scale power plants capable of achieving even these efficiencies.

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Most utilities expect to add new capacity in much smaller increments, where central station fuel efficiencies are much harder to achieve. Many are moving toward "distributed" power plants in sizes ranging from less than one megawatt to perhaps 50 megawatts, with most falling between one and 20 megawatts. In this range, turbine efficiencies often fall to 30% or less -- *about half that of comparably sized MCFCs* -- with emissions characteristics likely to hinder or prevent siting in many distributed settings. High-efficiency MCFCs used in such applications can thus conserve primary energy sources while improving air quality and reducing energy costs for American businesses, making them more competitive in world markets.

For many utility and industrial applications, MCFCs also offer distinct advantages over other types of fuel cells now under development. For example, MCFCs promise as much as 50% higher fuel conversion efficiencies than phosphoric acid fuel cells ("PAFC") now entering the market, with even lower air pollutant emissions -- amounting to *less than 10% of current federal air quality standards*. Moreover, MCFCs can produce much higher quality heat as a byproduct of electric generation than that produced by PAFC's, so they are especially suitable for utility and industrial cogeneration uses that PAFC's cannot serve.

MCFCs are also far less sensitive to fuel contaminants than, for example, polymer fuel cells. Thus they are expected to operate well not only on natural gas, but on *domestic renewable fuels* such as landfill gas and methane from sewage digesters.

For these and other reasons, a number of ACCT companies that have not been involved in PAFC or other fuel cell development efforts are actively supporting MCFC development programs.

2. Considerable RD&D Remains to Be Done to Reduce Costs and Establish MCFC Performance and Reliability

MCFC development has made impressive progress over the past several years. In particular, M-C Power's IMHEX technology has advanced from bench-scale cell stacks to the world's first large-scale MCFC demonstration power plant, a 250-kilowatt unit recently installed at the Unocal Corporation's Research Center in Brea, California, and expected to begin operations very soon. However, the Unocal plant is only a "proof-of-concept" demonstration, intended simply to show that the three basic components of a MCFC power plant -- the fuel processor, the cell stack, and the power conditioner -- can function together in a commercial-scale unit. Although this is a major milestone for MCFC development, it remains an early step in a development process that must continue over the next several years to bring the technology to the point where the private sector can take over.

To reach its goal of a commercial MCFC power plant by the year 2000, the IMHEX Development Team -- in partnership with the U.S. Departments of Energy and Defense, state and local governments, private research organizations, and investor-owned gas and electric utilities -- has established a careful and deliberate sequence of research, development, and demonstrations scheduled to occur between now and 1999. The Unocal power plant is the first of two 250-kilowatt demonstrations. The second, scheduled to begin operations at San Diego's Miramar Naval Air Station later this year, will incorporate a new design and specialized new components, and will be the first functionally integrated IMHEX research power plant. The plant must then be scaled up to the one-megawatt size anticipated for utility deployment, while substantially reducing its costs through innovations in design and materials.

Once that is successful, the Development Team plans at least three cost-shared, one-megawatt demonstrations through 1999. These are intended to establish the plant's performance, reliability, and durability under a range of climatic conditions, fuel types, and operating regimes critical to ACCT's utility and industry members, and to other potential purchasers and users.

Every phase of this effort, from advanced materials research through manufacturing improvements through demonstrations, has relied and will continue to rely on substantial private-sector cost sharing. However, the magnitude of the undertaking and the risks it necessarily entails are beyond the means of individual ACCT companies, which are finding it necessary to slash expenditures across the board to meet intensifying competition in a newly deregulated environment. Since MCFCs promise important societal benefits in the form of resource conservation and efficiency, environmental improvements, lower energy costs for consumers, and an enhanced competitive position for U S. industries, continued federal funding at the levels requested is not only entirely appropriate: it is now an essential element to bring the technology forward and help U.S. firms compete in world energy markets over the longer term.

3. Private Sector RD&D Dollars For Promising Energy Technologies Are Declining Rapidly in the Face of Intense Competitive Pressures and Utility Restructuring

ACCT participants include a range of private sector businesses that are prepared to implement MCFCs once they are proven commercially viable. However, the regulatory environments in which many of them operate, and the competitive environment into which they are being thrust, are viewed as strongly discouraging RD&D -- especially RD&D focused as much on public benefits as on private ones, or which cannot be expected to yield returns within a short two- or three-year horizon.

Far from picking up any energy RD&D efforts that the government might curtail, the private sector is actually *retreating* at an alarming rate from its own historical commitment to RD&D. Until now, the utility industry has been by far the largest non-federal contributor to fuel cell RD&D. However, in the wake of competitive changes spawned by the 1992 Energy Policy Act and accelerated by California's ongoing restructuring proceedings, utilities across the country are withdrawing support from industry research organizations such as the Electric Power Research Institute ("EPRI"), and eliminating their own internal RD&D functions at a distressing pace. For example, the California Energy Commission reports that "*[i]n 1995, RD&D in advanced generation technologies by California investor-owned utilities is expected to decline by 88% from 1993 levels*", and that "*contributions to EPRI from California regulated and municipal utilities will be 50% lower in 1995 than in 1994*" [See Docket No. 94-EDR-1] Similar statistics could be cited for many other utilities in other parts of the country.

Reduced utility support for advanced generation RD&D does not reflect on the value of such efforts, but on the utilities' uncertainty about recovering their RD&D expenses through rates in a restructured regulatory environment. Nor can utilities freely invest shareholder dollars in high risk technology development, since utility investors typically seek and expect a much lower risk profile than such investments entail. Yet utilities and their customers remain the most direct conduits through which MCFC technology can reach markets in which its valuable societal benefits can be realized.

For these reasons, ACCT's leaders believe it is vitally important to continue federal RD&D support through the next several critical years, until the early costs and risks of the technology can be reduced to levels acceptable to private companies operating in highly competitive markets. To do otherwise would be to abandon substantial public and private investments already in place, and to forego the important economic, environmental, and competitive advantages that advanced fuel cell development can deliver.

ACCT

4. Mobilizing Remaining Private RD&D Support Depends on MCFC Developers' Ability to Remain Credible by Meeting Existing Development Schedules

Prominent elements of ACCT's mission are to build industry confidence in MCFC technology, and to develop a framework for early purchase commitments to help bring it into the marketplace. Toward these ends, leading ACCT companies have worked especially closely with the IMHEX Development Team over the past year to help it adhere to development schedules and meet announced milestones. ACCT believes that these are critical to gain the confidence of private sector participants, and to position the technology to make its contribution once its development is complete.

At this stage of technology development, MCFC developers including the IMHEX Team depend significantly on federal RD&D support. When support committed subject to Congressional appropriations is not forthcoming, or is delayed or reduced (even for understandable reasons), development and demonstration efforts are correspondingly delayed. These delays are highly visible to the industry whose confidence ACCT and the IMHEX Team are trying to build. Unfortunately, industry participants not directly involved with the development effort tend to perceive this simply as a failure by the developers to meet schedule targets or development milestones, when in fact it reflects an inability to proceed without the cash flow fairly anticipated and reasonably needed to do so.

ACCT understands that FY 1996 funding levels requested by the Administration for MCFCs may yield less than the amounts contracted for in the first year of M-C Power's recent Product Design and Improvement contract with the Department of Energy (which was already delayed nearly a year while federal agencies resolved unrelated issues under Section 2306 of the 1992 Energy Policy Act). If that occurs, we understand that schedules and milestones contained in the contract and announced to the industry will again be delayed, with the very real prospect of undermining private sector confidence in the development effort and discouraging early private sector investment in its next phases. We believe that would be entirely counterproductive to the efforts of both the federal government and its private sector partners who have invested in MCFC development to date, and we urge the Subcommittee to recommend funding at the levels requested by M-C Power to avoid such a result.

Industry confidence is the key to increased private sector involvement as RD&D succeeds in reducing the development risks of societally useful technologies to the point where industry can afford to proceed. In building industry confidence, ACCT cannot overemphasize the importance of continuous, uninterrupted financial support to MCFC developers to enable them to keep to announced schedules and meet important development milestones.

* * * * *

In summary, ACCT believes that MCFCs can offer significant efficiency and environmental advantages over other power generation technologies for applications important to our companies and customers. Substantial RD&D is still required to bring this technology forward, and uncertainties created by industry restructuring will make that much harder to fund through private sources than in the past. Unless federal funding continues at needed levels and on reliable schedules, industry confidence built up painstakingly over the past several years is likely to erode, and with it the fruits of a productive partnership between the Federal government and the private sector that promises real benefits to the nation and its citizens.

I am most grateful to the Subcommittee for this opportunity to present our views, and I thank you on ACCT's behalf.

Mr. KOLBE. Thank you very much, Mr. Nimmons. Do you have questions, Mr. Bevill?

Mr. BEVILL. I have no questions.

Mr. KOLBE. If you have any questions or comments, I hope you will say so.

Thank you very much, Mr. Nimmons.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: WILSONVILLE POWER SYSTEMS DEVELOPMENT FACILITY

WITNESS

GARY A. STYLES, SOUTHERN COMPANY SERVICES

Mr. KOLBE. We have next Southern Company Services, Gary Styles.

Mr. STYLES. Thank you, Mr. Chairman, for giving me this opportunity to testify before this committee. I would also like to thank this committee for the previous support that you have shown for the Wilsonville Power Systems Development Facility.

The Power Systems Development Facility is a joint industry, DOE research project that is specifically designed to test and develop improved methods of producing electricity from coal. When these technologies are perfected, they can be used to increase the efficiency, increase the capacity, and reduce emissions at existing power plants both domestically and overseas. The technologies can also be used to build new power plants that are 10 percent more efficient, also have lower emissions and produce electricity at lower cost than existing coal-based technologies.

The operation of the first two of five technology units that will be built at Wilsonville will begin operation by the end of 1995. Construction of the third and fourth units will be finished in 1996, and the fifth unit, a molten carbonate fuel cell, will be installed in 1997.

The Southern Company and our other industrial partners across the Nation, including Foster Wheeler, M.W. Kellogg, Westinghouse and the Electric Power Research Institute, are contributing over $30 million for this research project. However, due to the relative risk and the long-term nature of the results, this project would not be performed if it was not for Federal support.

Therefore we request that this committee support the administration's budget proposal of $24 million for the power systems development facility in the fiscal year 1995 budget.

Thank you for your consideration.

[The statement of Mr. Styles follows:]

THE FY 1996 FOSSIL ENERGY RESEARCH AND DEVELOPMENT BUDGET

Testimony of
Gary A. Styles
Manager, Special Projects
Research and Environmental Affairs
Southern Company Services, Inc.
to the
Committee on Appropriations
Subcommittee on Interior and Related Agencies
U.S. House of Representatives

Introduction

Mr. Chairman and Members of the Committee

Southern Company Services, Inc., ("SCS") is a subsidiary of The Southern Company. The role of SCS is to provide, at cost, technical and management services to the five operating companies and other affiliates of The Southern Company. SCS is actively involved in many areas of research including technologies that are important to the efficient production of electric power. In particular, The Southern Company, through SCS and its operating companies, supports and conducts research that will help the Nation utilize its coal resources while minimizing the environmental effects of utilizing our Nation's most plentiful and valuable resource. SCS is currently participating in projects in both the Department of Energy ("DOE") Clean Coal Technology program and the DOE Fossil Energy Research and Development program.

The purpose of this testimony is to request this Subcommittee's continued support for the Power Systems Development Facility ("PSDF") for advanced coal gasification and pressurized combustion research. SCS would also like to express appreciation to this Subcommittee for previous support for advanced fossil energy research. Specifically, SCS supports the current budget proposal recommendation of $24 million for the PSDF. However, funding of up to $26.3 could be used by the project to meet current schedules.

The Strategic Importance of Technological Improvements in Electric Power Production

As perhaps never before, "change" is the hallmark for both the private and public sectors. Restructuring, re-engineering, and downsizing to reduce costs and to compete in a global economy are facts of life. We are all aware of the pressures on government to streamline and re-invent itself to serve Americans in a more cost effective manner. Likewise, we in the electric utility industry are making dramatic changes and reducing costs to prepare for greater wholesale electric competition.

While lower cost and increased efficiency in government and in the operation of electric utilities are on the whole a good thing, it is imperative that long term concerns not be ignored. One disadvantage of this new environment is that both industry and government tend to focus on short-term goals. Important technologies that are in the research and development phase are easily lost in such an environment. For example, the time required to develop new coal based technology for electric power production can easily exceed ten years, while the expense can far exceed what any one company or a single industry can reasonably afford. Thus, without continued federal investment, advanced coal-based technologies that can provide long-term societal and national security benefits may simply go undeveloped.

SCS believes that it should be the Federal Government's role, in conjunction with private industry, to develop energy and environmental policies that protect the environment and increase energy security. These policies should also take into account the effects that these polices will have on our standard of living and quality of life. If the American economy is to continue to grow and compete in a world economy, it is imperative for the Federal Government to continue to support programs that foster the development of new technologies to help achieve these policies. The economic consequences of the reduced support for advanced coal-fired research activities go beyond just the electric utility industry -- coal producers, basic industries, engineering and construction firms, and consumers all benefit from the development of new cutting edge technologies that utilize coal. The growth and health of the U.S. economy are inextricably linked to the availability of low-cost and dependable sources of energy. Fostering innovation has been a hallmark of our nation. New products and services will lead to energy efficiency and improved environmental quality. If federal investment in the research and development of coal-based power technologies declines, the U.S. may lose the technological advantage necessary to provide economical and dependable electric power. American industry relies partly on low-cost electric power and other energy to remain competitive globally. Therefore, downsizing coal-based energy research and development budgets now will mean that the U.S. could lose the most important global battle in the twenty-first century -- the battle for continued economic stability and economic preeminence.

The United States has always been a leader in energy research. Current research and development programs in the coal and fossil energy field will assure that a wide range of technology options continue to be available for future needs. We recognize the difficult choices that confront Congress when it examines research programs. We believe, however, that supporting advanced coal-based energy research, like the PSDF, will be a net plus for the economy, the federal government, and the American people over the long run.

Power Systems Development Facility

The Wilsonville PSDF for Gasification and Pressurized Combustion is a Joint Industry/DOE facility for engineering-scale testing and development of devices to remove particulates from hot gas in high-efficiency coal gasification and pressurized fluidized-bed combustion power plants. Industrial partners in the project, in addition to SCS include: M.W. Kellogg, Inc., Foster Wheeler Corporation, Southern Research Institute, Westinghouse Electric Corporation, Combustion Power Corporation, Industrial Filter & Pump, Inc., Allison Gas Turbines, and the Electric Power Research Institute. In addition to the Wilsonville, Alabama plant site, components for the facility are being developed in Houston, Texas, (gasifier reactor development); Livingston, New Jersey, (combustor development); Menlo Park, California, (filter fabrication); Cicero, Illinois, (filter fabrication); and Pittsburgh, Pennsylvania, (filter fabrication.)

High-temperature, high-pressure particulate removal must be perfected in order to utilize new high-performance gas turbines in coal-based power plants. When fully developed, these technologies 1) will improve the efficiency of power generation from coal by over 1,000 Btu/kWh (approximately 12 percent higher efficiency and a corresponding reduction in CO_2 emissions); 2) will lower the cost of electricity by over 10 percent; 3) will be more acceptable to coal-based utilities than today's coal-gasification combined-cycle designs; 4) and will reduce pollutants by up to 99 percent.

The PSDF will be the focal point for much of the Nation's advanced electric power technology development in the 1990s and into the twenty first century. Current plans call for the facility to contain five modules: 1) an advanced pressurized fluidized-bed combustor ("PFBC"), an extremely clean method for burning coal; 2) a transport reactor gas source, a generic type of coal gasifier; 3) a particulate control module, to test filters for removing tiny particles from coal gases; 4) an advanced burner-gas turbine module; and 5) an advanced fuel cell. Private developers will be able to test innovative electric power systems components -- new combustors, improved cleanup systems, and advanced turbines and fuel cells -- at a central location, saving the time and expense of building separate test facilities.

The Wilsonville PSDF offers several advantages to the utility industry and to the Nation by being able to address issues for the near, middle, and long-term management of technology risk:

- The testing of hot gas Particulate Control Devices ("PCDs") addresses the near-term developmental needs, and the schedule of the PSDF is geared towards providing support to Clean Coal Technology ("CCT") projects for advanced power generation as these projects enter the design and operational phase. All five gasification and the four pressurized combustion CCT projects will use PCDs to clean the gas streams of tiny particles. In these projects, the ability of advanced PCDs to clean hot gas is turning into a critical issue since more developmental effort is needed to improve the mechanical integrity and reliability of these devices.
- The advanced PFBC system offers the potential of a high efficiency system for the mid-term that may be widely used in repowering applications or as stand-alone plants.
- The integrated gasification/fuel cell concept is a system that has the potential to become the most efficient and environmentally superior coal-based system available over the long-term.

The facility is currently under construction with the gasification side scheduled to begin operation late this year and the PFBC side scheduled to begin operation by mid-1996.

Why Developing Advanced Coal-Based Power Generation Technology is Important

Coal is the most abundant energy source in the U.S. and provides 55 percent of the electricity generated in the Nation. It is expected that the use of coal will continue to increase in the future. Most of this electricity is produced by older pulverized coal ("PC") boilers which are approaching the end of their effective lives and will need to be replaced within the next 10 to 20 years. In addition, as demand for power increases, new generating units will be required. As coal is expected to remain the most cost effective fuel for generating electricity from base-loaded power plants, these generating units, both new and replacement, should continue to use coal as the primary fuel.

Many of the new and replacement units are expected to be either integrated gasification combined cycle systems ("IGCC") or PFBC. Compared to the previous generation PC plants they will be replacing, these technologies have the advantages of higher efficiencies with resulting lower CO_2 emissions, lower emissions of SO_2 and NO_x, and lower electric production cost. In addition, the PFBC plants will have lower capital cost. These advanced coal technologies have benefited from DOE supported research and development programs.

Replacing existing power plants is commonly referred to as "repowering". For some PC plants, it will be possible to use existing equipment such as the steam turbine and coal handling system. In other instances, the entire plant may have to be replaced. Regardless of the extent of replacement required, repowering offers numerous advantages for an electricity utility. Specifically, it preserves an existing site and upgrades existing assets. For these reasons, many people consider repowering to be the most likely initial application of advanced coal-based power technology. If one of the advanced coal technologies is used, the generating capacity of the power plant will be increased, which will help offset the need to build new capacity. Thus, repowering will reduce capital cost for increased capacity, will increase the useful life of existing assets, will increase efficiency, and will meet all environment standards.

In order to achieve the full advantage of repowering, however, successful operation of circulating PFBC requires an improved PCD. Such devices, although under development, are not yet commercially available. One primary function of the Wilsonville PSDF is to speed the development and commercialization schedule for PCDs for power generation applications.

Which Advanced Technology is Important?

The technology chosen for new or repowering applications will depend on the specific requirements of the utility. Factors to be considered include the following:

1. **Integrated Gasification Combined Cycle**
    - Removes more than 98 percent of the sulfur.
    - Technology can be used to repower natural gas-fired applications when fuel costs or availability favor coal.
    - Technology will benefit from improvements in natural gas technologies such as combustion turbines and fuel cells.
    - Technology can be used to co-produce chemical products such as methanol.
2. **Pressurized Fluidized Bed Combustion**
    - Compatible with existing PC power plant infrastructure, making it well suited for repowering applications.
    - Compact modular design reduces construction time and cost.
    - Advanced designs, such as the concepts being tested at Wilsonville, include a combustion turbine which can benefit from improvements in combustion turbine technology.
    - Potentially, lowest electricity cost.
3. **Particulate Control Devices**

Current IGCC technology requires that the syngas be cooled to about 100°F before removal of sulfur and particulates. However, with in-situ sulfur removal similar to PFBC and reliable PCDs, gas stream cooling requirements will be reduced or eliminated, which will increase efficiency and reduce cost.

Current generation PFBC technology uses specially fabricated expansion turbines that are designed to withstand the erosive nature of particulate-laden gas. Incorporating a PCD to remove virtually all dust will allow conventional combustion turbines to be used -- lowering capital cost and reducing the cost of electricity.

Both IGCC and PFBC technologies will benefit from the PCDs to be tested and developed at the Wilsonville PSDF project. The Wilsonville PSDF will be the only facility in the world where all the components of an advanced coal-fired power plant can be tested in an integrated system at a scale large enough to allow confident scale-up, but small enough to minimize development cost. This facility will allow U.S. electric utilities to maintain reasonable domestic energy prices and to gain a technological electric power production advantage that can help increase U.S. competitiveness in foreign electricity markets.

Conclusion

For the foregoing reasons, SCS requests your continued support for the Power Systems Development Facility by including $26.3 million in funding in the Department of Energy's Fossil Energy Budget. We thank you for the opportunity to appear before you today.

Mr. KOLBE. Thank you very much.

Yes, Mr. Bevill.

Mr. BEVILL. Mr. Chairman, thank you. Gary, what is the outlook on the future as far as your need for Federal funds?

Mr. STYLES. Well, the peak cash flow was in fiscal year 1995. 1994 is going down, construction will be finished, and then in fiscal year 1997, we estimate it will be about $15 million a year for operation.

Mr. BEVILL. And 24 of this for 1996?

Mr. STYLES. That is correct.

Mr. BEVILL. Thank you.

Mr. KOLBE. Thank you. Thank you very much, Mr. Styles. Appreciate your coming.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: FOSSIL FUEL AND ENERGY EFFICIENCY

WITNESSES

AMAL M. MANSOUR, CHIEF EXECUTIVE OFFICER, MANUFACTURING AND TECHNOLOGY CONVERSION INTERNATIONAL, INC.

MOMTAZ N. MANSOUR, PRESIDENT, MANUFACTURING AND TECHNOLOGY CONVERSION INTERNATIONAL, INC.

Mr. KOLBE. Manufacturing and Technology Conversion International, Dr. Momtaz Mansour, President, and Mrs. Amal Mansour, CEO. Welcome.

Mrs. AMAL MANSOUR. Good afternoon, Mr. Kolbe, Mr. Bevill. Thank you for the opportunity to be here today. My name is Amal Mansour, and I am CEO of Manufacturing and Technology Conversion International, a small energy technology company which is the top success story of the DOE SBIR program. I am very pleased to be here today representing both myself and small high tech businesses.

As chairman of the committee of women-owned high tech businesses, let me begin by citing that small business is the primary source of innovation. Seventy-five percent of the patents filed in the U.S. are submitted by small business. Also, 70 percent of the new jobs being created are offered by small business. With that in mind, let me offer the following comments.

One, while everybody understands the rationale behind cost sharing for R&D, small business should be exempt. They do not have the money to cost share with the Agency for the R&D money. The net result of the cost sharing policy is that small business need not apply. They are shut out of the R&D money, even though that is where the true innovation and inventiveness is coming from. In our case, we are dealing with capital intensive energy and environmental technology. Once it is commercial, the taxpayer will get their money back a thousand fold.

Number two, streamline and simplify the procurement process for small business. Longer term commitments for multiyear projects must be honored. Funding for new technologies should be completed to bring them to realistic commercial introduction based on real industry standards.

Three, raise the small purchase threshold to $100,000 instead of the current 25,000. It has been 25,000 for over 10 years now, with inflation.

Number four, assign small business audits to commercial accounting firms so they can be conducted in a timely and less cumbersome manner.

Five, enhance export assistance to small high tech business. I had the good fortune to accompany Secretary O'Leary on her missions to India and Pakistan, and I found the appetite and market for U.S. clean energy efficient technology was immense.

Number five, increase funding to the SBIR program.

Thank you, again. I turn the testimony to Dr. Mansour.

[The statement of Mrs. Mansour follows:]

AMAL M. MANSOUR
CEO AND CHAIRMAN OF THE BOARD
MANUFACTURING AND TECHNOLOGY
CONVERSION INTERNATIONAL, INC.
U.S. DEPARTMENT OF ENERGY

My name is Amal Mansour and I am CEO of Manufacturing and Technology Conversion International, a company that got its start with the SBIR program. We are currently on the verge of commercializing a revolutionary new technology that has numerous applications worldwide. I had the good fortune to accompany Secretary O'Leary on her Presidential missions to India and Pakistan, and I found that the appetite and market for U.S. clean energy efficient technology was immense.

I wish to report to you that in addition to this, our company was successful at a pilot scale in developing a revolutionary technology for direct firing of coal in combustion gas turbines. We need an addition $1,600,000 in FY-96 budget to continue the work on this technology.

I am addressing today policy issues that would lead to environmental improvements as well as U.S. industrial competitiveness:

1. Fiscal incentives that promote the development and use of clean, environmentally benign new technologies and processes by developers and users should be aggressive. Emissions trading and other market based systems do not make for a cleaner environment nor for an efficient energy use. They merely trade paper so that an emitter can continue to emit with impunity. The total emissions remain the same or may indeed increase. If the credits can be purchased less expensively, (and they always will) than installing cleaner and more efficient systems, what provides the motivation for reducing emissions? Or for becoming more energy efficient? What is the sense of a utility in the West that utilizes compliance coal being able to sell credits that it does not generate except by its location. However, if a utility installs efficient and effective technology, that utility, should benefit with some fiscal advantages (like a tax credit) rather than being able to sell its reduction to another emitter. The emissions credits are quite analogous to derivative trading instruments.

2. Provide substantial fiscal advantages for companies modernizing their facilities with new technologies; for example, low cost or guaranteed loans, tax incentives, etc. On the other hand, penalties for unsafe and inefficient processes should be seriously considered. These penalties may take the form of additional costs for energy and environmental discharges, thereby making the cost of doing business with outdated facilities prohibitive. The federal government might also foster a program designed to warranty the performance of installations utilizing new technologies thereby reducing the risk to investors in the early placement of these new technologies.

3. R & D programs should be shaped to promote innovativeness and not be constrained by some hypothetical concept that equates the ability to cost share with the merits of the technology. This has become a sham and has essentially resulted in a lock-out of the small businesses that have traditionally provided innovative technology, but do not have the ability to cost-share, specially in the case of technologies that are capital intensive.

4. Streamline and simplify the procurement process for small business. Longer term commitments for multi-year projects must be honored and not subject to the limitation of the funds clause. Funding for new technologies should be expanded to bring them to realistic commercial introduction, based on real industry standards.

5. Assign small business audits to commercial accounting firms so they can be conducted in a timely and less cumbersome manner, as an alternative to DCAA who are geared towards giant defense contractors.

6. Enhance export assistance to small high tech business.

7. A portion of the National Labs funding should be directed to joint projects with small business, with the small business being the **prime**! and the National Lab as its subcontractor. This would augment the capabilities and resources of the small business, while maintaining the innovativeness, mission orientation, focus and also keep the costs reasonable.

8. Raise the small purchase threshold to $100,000 instead of the current $25,000.

9. Increase funding for the SBIR program.

Thank you again for this opportunity and I am available to participate in the debate of these issues.

Mr. KOLBE. Thank you, Dr. Mansour.

Mr. MOMTAZ MANSOUR. Mr. Kolbe, I would like to just address two issues, if I may. The first one is a specific issue regarding a Clemson project that we are building a plant at Clemson University. It is a $6 million program. We need $1 million to finish it. It is a five-year program. If we stop now, everything will go down the drain.

The other issue I want to address is competitiveness. As I travel all over the world trying to sell our equipment, we have done a great job which is commendable to free all of these other nations and help their economy. There is very low-cost labor available, highly educated, that used to be focused on military in the Eastern Europe, and a lot similar amount of very low-cost labor, Ph.D.s, very educated in developing countries. We will not survive, I believe, without added value high technology with our standard of living. A Ph.D. in India is $500 a month. In the Czech Republic, it is $3 a hour. So the only way we can survive, I believe, is through high tech added value.

As Mrs. Mansour pointed out, the innovations by statistics come from small business. So I am proposing certain hopefully innovations in policy. I spent three decades at NASA, defense. I was a handful of guys that formed ERDA, and I was at DOE. And now I have to say that there are things that we can invent in policy. We should not fund any foreign owned and controlled technology with taxpayer dollars, to their own demise.

We should not give any direct money funding to large companies, tax credits for R&D and investments in small business. We should have direct funding support for where the innovations is coming from, without this cost sharing, because even with big companies, the cost sharing is really not there. It is mostly an illusion.

The national labs should be working with small business where the entrepreneur is subcontracting things to them. You put the voltage of the entrepreneur and the innovation with the current of the national labs, you have a lot of power. There is more of that that we can discuss but the time is short. I would really seriously recommend a GAO investigation of this.

Thank you.

[The statement of Mr. Mansour follows:]

TESTIMONY OF DR. MOMTAZ N. MANSOUR

CHAIRMAN OF THE BOARD AND CEO OF THERMOCHEM, INC.

BEFORE

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR
AND RELATED AGENCIES

COMMITTEE ON APPROPRIATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

MARCH, 1995

My name is Dr. Momtaz N. Mansour and I serve as Chairman of the Board and CEO of ThermoChem, Incorporated and I am here to testify in support of the DOE Fossil Energy and Energy Efficiency Programs and I am also here to tell you that our company, which is providing technology for the economic survival of our country, is going down the drain while taxpayers' funds are being used to fund the technologies of our foreign competition. We need $1,000,000 to complete a cooperative and cost-shared project that is nearing completion at Clemson University in South Carolina. Otherwise, the $6 million already spent would be wasted. We also need to have our Clean Coal Project which has already accrued $1,500,000 in private sector cost-sharing secured for completion.

In the area of Energy Efficiency and Renewable Energy, we need $2,000,000 to continue our program on pressurization of our black liquor recovery technology to keep ahead of our foreign competition. The benefits and value of these technologies in creating jobs here and recovering this nation's economic might dwarfs the funding request I am making before you today.

I am appearing before you today with a great deal of hope, reverence and intensity seeking to bring to your attention a very serious set of issues that are, I believe, pivotal to the welfare of the United states but that unfortunately have been dangerously absent from our national debate.

It seems somehow that we have forgotten that the nation's economic might is becoming increasingly more important than our military might.

You see, certain events and developments that have occurred in recent times must be pondered if we are to protect the interest and the future of our nation, our children and grandchildren. I beg your patience while I discuss such vital issues.

First we must, with full comprehension, heed a lesson of what happened to the other superpower, the former Soviet Union. That former superpower understood fully the importance of technology to the military might of the then Soviet Union. Essentially, they proceeded to devote all their technologists (the true national assets of any nation) in creating a formidable military power indeed.

The former Soviet Union, however, made a fatal strategic error in judgment: by and large they ignored the need to devote some of its technological assets to technologies that can maintain its economic might. The result was fatal to that regime when the economy of that former superpower collapsed and now they are, from an economic strength point of view, third-world nations.

In the process, one of our states, namely, California, ended up with essentially the same fate. As the defense and space programs became increasingly unnecessary because of the cessation of the Cold War, the economy in California almost collapsed. The state did not see it coming in the last few years of the Cold War and did not attempt to redirect the formidable horsepower in technologists available in the state to the new mission: technologies for economic might. It is sad to see the State of California, the home of the technologists that helped this nation in a significant measure to win the Cold War, end up being a State of highly skilled technologists lost and out of work in an ailing economy. The state policy makers failed to see it coming and made essentially the same strategic mistake that the leaders of the Soviet Union made, at least generically.

Furthermore, during the course of the last few decades, the United States has accomplished an admirable and noble thing: helped to free peoples of other nations and helped develop the economies of other nations; this is a great humanitarian thing to do and I hope that the U.S. will continue to do that.

Nevertheless, our peoples' best interest as well as our ability to help others demands that we manage our affairs in a manner that will ensure sufficient economic might to take care of our own people and still have enough left over to help the rest of mankind. This poses a formidable and awesome responsibility on the United States and in turn the policy makers of the nation.

A fatal strategic error that could be made by our leaders is failing to recognize that technology is the foundation of economic might for the U.S. or any nation for that matter. To become the second superpower that bites the dust because it forgot what made it a superpower initially, either militarily or economically, would be untenable. I must repeat a plea that we do not make the same mistake that the leaders of the former Soviet Union made or we are sure to follow the same fate, sooner or later.

We must also be mindful that our noble initiative to help others has been successful but in the process, we unleashed formidable new economic competitors in the world markets to our people. A massive number of highly educated, highly capable technologists exist in Eastern Europe and the developing nations. The labor costs for these professionals is low and they are willing and able to work long hours to meet their needs.

Without innovative technologies there is absolutely no way that we can maintain a high standard of living for our people, particularly our children and grandchildren and much less continue our noble crusade to help others in other nations. We must have the added value of our innovative technology to keep both our standard of living and our help to other Peoples. I am alarmed by the potentially fatal absence of this focus in our national debates.

I am even more alarmed by the fact that the outrageous policies that we are now following in this country are actively accelerating the demise of our competitiveness and resulting in the loss of jobs and a lower standard of living of our taxpayers. All of this, using funds that are taken from the taxpayers by our government.

We are also mismanaging and in fact abusing our true national asset, the U.S. technologist, in a manner that is not that much different from that which was carried out by the former Soviet Union and third-world nations. We may therefore be heading toward the same destiny.

We must stop using taxpayers' money to fund foreign-owned and controlled technologies. A review of all the DOE programs, with our competitiveness and national interest in full focus is urgently needed and the funds reapplied to programs to complete the development of technologies from U.S. small innovative business that is the source of the kind of innovation that is essential for our survival in the new economic competition by the rest of the world.

I have seen it from both sides now and as one of a few that formed the ERDA and later on served at DOE and now as the head of a small business that has achieved the top success story of this country's Small Business Innovative Research (SBIR) Program, I hope you will listen.

I take this precious time and space generously afforded me before the Subcommittee to list but a few of the key policies I propose as essential for maintaining our competitiveness:

1. No taxpayer RD&D funding for foreign owned and controlled technologies that could lead to the demise of the taxpayers' competitiveness.

2. No direct funding of large U.S. companies but provide 10% R&D tax credit and 20% tax credit for investments made, by and large, by U.S. companies in small U.S. innovative technology companies support.

3. Direct funding support of small U.S. innovative technology companies where the added value that this nation needs to maintain its standard of living and economic might can create new and high paying jobs.

4. National Labs should be required to obtain at least 40% of their funding from subcontracts supporting the small innovative companies. These small, high-tech companies produce the needed inventions and the National Labs have the resources to support their development.

This, I believe, will focus our resources in a mission-oriented manner to keep this nation great. While there is no room here to present the rationale and the basis for these policy "inventions," I recommend that you task the GAO to pursue an investigation of these issues. What if my assessment is in fact valid, then doing nothing about it could create a grave and serious situation for our nation, wouldn't it?

I will be more than glad to continue to serve this great nation so that we do not leave our children a nation that could become an economic colony of Japan and Germany.

I, therefore, remain at your service to help debate and develop policies that would keep us mighty in technology and therefore able to help our own people as well as the rest of humanity.

Mr. KOLBE. Thank you very much. You certainly raise some interesting questions when you talk about the availability of research technology to, and monies for, small businesses. It is something I know as a member of the Small Business Committee which I used to be on, we certainly heard about. It is something this committee is very interested in.

We appreciate your testimony here today. Thank you.

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

MARSHALL WITTMANN, DIRECTOR OF LEGISLATIVE AFFAIRS, CHRISTIAN COALITION

Mr. KOLBE. Next we have Marshall Wittmann, Director of Legislative Affairs, the Christian Coalition.

Mr. WITTMANN. Good afternoon. Thank you very much, Mr. Chairman, for this opportunity. My name is Marshall Wittmann, I am Director of Legislative Affairs for the Christian Coalition, representing 1.5 million members and their families.

Mr. Chairman, to paraphrase a non–NEA funded artist, I come here today not to praise the National Endowment for the Arts, but to argue for its burial. In calling for the elimination of Federal funding for the NEA in its entirety for fiscal year 1996, the Christian Coalition wishes to emphasize its strong support for the arts.

The arts play an important role in the culture of a civilization. But, Mr. Chairman, let's not confuse the matter. The NEA is not the arts. If anything, the NEA has too often, far too often, polluted our cultural waters. Our main point of contention is not whether the arts should be funded, but rather which is a proper entity to fund the arts, the government or the private sector. We do not believe it is a proper role for the Federal Government and a proper use of Federal dollars.

Most importantly, this is not about censorship. It is about subsidization and the role of government. Through the process of selecting and rejecting applications for funding, the NEA places the sanction of the Federal Government on certain artists and institutions. That is why it is not just the Federal funding that is so important to these artists and institutions, it is the Federal imprimatur that is so critical. However, government and its designees should not be in the role of determining what is and what is not worthy of being funded.

Over the past several months, members of Hollywood's entertainment industry have been actively promoting the need for continued funding of the NEA. Interestingly, I understand the Oscars will be a prime point of promoting this political issue. Ironically, many Hollywood entertainers are in a far better position to subsidize the arts than most taxpayers. Moreover, the entertainment industry earns approximately $340 billion a year in profits.

Why should the government take money from a struggling businessman, a waitress or a truck driver earning $30,000 per year, to send to Washington to fund the arts? Why not leave it to the private sector, including the entertainment industry, to provide the

$167.4 million in funding? Again, the entertainment industry is not running a deficit. The Federal Government is. Moreover, the American public contributes $9 billion to the arts each year and will continue to fund those projects it deems worthy.

The Christian Coalition further urges elimination of the NEA because it is clear that it has become a $167 million agency, over which the United States Congress has been able to exert very little control. Based on the Agency's past history, any attempts to place congressional restrictions on the Agency's use of taxpayer dollars will either be overruled by the courts or ignored by the Agency.

Despite having been afforded the opportunity, the NEA has consistently resisted efforts to get its affairs in order. The most recent example is Ron Athey's performance involving human mutilation at the Walker Art Center in Minnesota in March of 1994. Jane Alexander, the NEA chairman, defended the work. However, the Congress did see something wrong with this use of tax dollars. It rebuked the NEA last year by reducing its funding 2 percent due to this performance. Yet as noted before, NEA saw nothing wrong with it. And the NEA has once again awarded funding to the Walker Art Center.

Mr. Chairman, it is indeed ironic that nativity scenes and Menorahs have been removed from the public square, but blasphemy is not only permitted, it is funded with Federal tax dollars. Such flagrant bigotry would not be tolerated if it were targeted at another protected class.

Finally, we would believe that for far too long the Federal intrusion into the family budget has risen along with a corresponding rise in the power of Federal bureaucracy. The power of Federal bureaucrats has reached the point where they are free to use tax dollars to fund religious bigotry, and all efforts by the taxpayers through their elected representatives to prevent this have been proven unsuccessful.

Finally, we believe it is time to let the American family and not bureaucrats judge the cultural programs deserving of support.

Thank you, Mr. Chairman, and we appreciate your consideration.

[The statement of Mr. Wittmann follows:]

STATEMENT OF MARSHALL WITTMANN
DIRECTOR OF LEGISLATIVE AFFAIRS, CHRISTIAN COALITION
BEFORE THE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS
UNITED STATES HOUSE OF REPRESENTATIVES
MARCH 24, 1995

On behalf of the 1.5 million members and supporters of the Christian Coalition, we wish to express our appreciation to the Subcommittee for the opportunity to present testimony regarding the fiscal year 1996 appropriation for the National Endowment for the Arts (NEA). We appear before you today to strongly urge the Subcommittee to eliminate federal funding for the NEA in its entirety for fiscal year 1996.

Government-Sanctioned Art: It's Time for the Subsidies to End

Mr. Chairman, the main point of contention is not *whether* the arts should be funded, but rather *which* is the proper entity to fund the arts -- the government or the private sector. We urge the elimination of federal funding of the National Endowment for the Arts because we do not believe it is a proper role for the federal government and a proper use of taxpayer dollars. This is not about censorship, it is about subsidization and the proper role of government.

Through the process of selecting and rejecting applications for funding, the NEA places the sanction of the federal government on certain artists and institutions. According to *The New York Times*, "Officials at the endowment say their grants serve as an imprimatur, a seal of approval, making it easier for artists and arts groups to raise money from other sources." That is why it is not just the federal funding that is so important to these artists and institutions, it is this federal "imprimatur" that is so critical.

And yet, it is this federal endorsement that should be questioned. William Bennett reinforced this point during his recent testimony calling for the abolishment of the NEA, "The government's "seal of approval" reaches far beyond raising funds; its validation can stultify and alter artistic and scholarly debate, shift the priorities of artists and professors, and give official blessing -- the blessing of the people of the United States -- to things both worthy and horrible. By underwriting various projects the federal government *by definition* plays the role of arbiter. Artists and academics, to say nothing of civil libertarians, should all be made profoundly uneasy by this."

This federal seal of approval is all the more objectionable when it endorses religiously-bigoted and obscene works that are offensive to the religious beliefs and morals of millions of Americans. It is time to remove the government from this controversial role.

Over the last several months, members of Hollywood's entertainment industry have been actively promoting the need for continued funding of the NEA. Ironically, many Hollywood entertainers are in a far better position to subsidize the arts than most taxpayers. *Forbes'* 1994 estimate of the combined 1993-1994 earnings of the 10 highest-earning entertainers was: Steven Spielberg, $335,000,000; Oprah Winfrey, $105,000,000; Barney, $84,000,000; Pink Floyd, $62,000,000; Bill Cosby, $60,000,000; Barbra Streisand, $57,000,000; Eagles, $56,000,000; David Copperfield, $55,000,000; Rolling Stones, $53,000,000; and Harrison Ford, $44,000,000. Moreover, the entertainment industry earns an approximate $340 billion a year in profits. Why should the government take the money from a struggling businessman, a waitress, or a truckdriver earning $30,000 per year, to fund the arts? Why not leave it to the private sector, including the entertainment industry, to provide the $167.4 million in funding currently provided by the federal government to the arts?

The entertainment industry is not running a deficit, the federal government is.

History of NEA Recalcitrance

Christian Coalition further urges the elimination of the NEA because it has become clear that the United States Congress has been able to exert very little control over the $167.4 million agency. Based on the NEA's past history, any attempts to place congressional restrictions on its use of taxpayer dollars will either be overruled by the courts, or ignored by the agency.

Over the years, the NEA has incurred the anger of individual Members of Congress, but it wasn't until 1989 that the agency became the focus of a firestorm of criticism. The 1989 controversy was sparked by two NEA-funded exhibits which many found offensive. The Andres Serrano series, which was subsidized by $15,000 of NEA funding, offended many Christians with its "Piss Christ," a photograph of a crucifix immersed in the artist's urine, as well as its other works, such as "Piss Pope," and "Piss God." The Roger Mapplethorpe exhibit, funded with $30,000 of NEA funds, contained nude photographs of children and explicit homoerotic photography.

As a result of the uproar which developed over these works, the United States Congress placed restrictions on the use of NEA funds, explicitly prohibiting the use of funds to "promote, disseminate, or produce materials which in the judgment of the National Endowment for the Arts . . . may be considered obscene, including but not limited to, depictions of sadomasochism, homoeroticism, the sexual exploitation of children, or individuals engaged in sex acts and which, when taken as a whole, do not have serious literary, artistic, political, or scientific value." One might have thought that the addition of this legislative language would have resolved the issue, but that was not the case. In order to comply with this congressional mandate, the NEA began requiring artists to sign statements indicating their willingness to comply with the restriction. Several of the grantees balked at this requirement, refused to sign the required certifications, and brought suit in federal court challenging the constitutionality of the practice. A California federal district court sided with the artists and held that the certification requirement was unconstitutionally vague since the NEA determined what constituted obscenity, and it infringed on the artists' speech rights. *Bella Lewitzky Dance Foundation v. Frohmayer*, 754 F. Supp. 774 (C.D. Cal. 1991). The NEA dropped the certification requirement shortly thereafter.

In the meantime, during 1990, the U.S. Congress had reauthorized the NEA and enacted its fiscal year 1991 appropriations bill. The final version of the legislation dropped the 1989 obscenity ban, and instead required the chairperson to consider "general standards of decency and respect for the diverse beliefs and values of the American public" in awarding NEA grants. It left the determination of whether funded projects were obscene to the courts, and authorized the NEA to obtain subsequent reimbursement for the funding spent on obscene work before additional funding would be granted to an artist.

Nevertheless, in December of 1990, NEA Chairman John Frohnmayer announced that he would not deny any grants for violating the decency clause. In addition, the "decency" restriction was also challenged in court and held to be unconstitutionally vague and violative of the artists' rights to speech and artistic expression. *Finley v. National Endowment for the Arts*, 795 F. Supp. 1457 (C.C. Cal. 1992). A clear pattern emerged of the thwarting of congressional intent by agency officials and the courts. Public criticism of the agency continued as controversial artists and organizations continued to receive NEA funding. Efforts continued in 1991 and 1993 to reduce or eliminate the agency's funding through amendments on the House floor.

But despite having been afforded the opportunity, the NEA has consistently resisted efforts to get its affairs in order. The latest example is Ron Athey's performance at the Walker Art Center in March of 1994. This federally-subsidized performance consisted of Mr. Athey carving a design in an assistant's back, soaking up the blood onto paper towels, and then sending the towels out over the shocked audience on a clothesline. Jane Alexander, the NEA Chairman, defended the work. *The Washington Post* quoted Ms. Alexander as stating that "[n]ot all art is for everybody," and that "Americans are certainly not used to seeing bloodletting, except in films, and when it happens in person it must be suprising." Since in her judgment the Walker Center had taken all necessary precautions, she questioned what was so controversial: "The scarification, the ritual-like aspect? Is it that the man is homosexual? I think those are areas that have to be carefully considered," she said.

However, the United States Congress did see something wrong with this use of tax dollars. It rebuked the NEA last year by reducing its funding by two percent due to this performance. Yet, as noted above, NEA Chairman Jane Alexander saw nothing wrong with it, and the NEA has once again awarded federal funding to the Walker Center.

NEA Funds Bigotry

Criticism of Ron Athey's performing at NEA-funded arts centers is not restricted to the Walker Center performance of last March. Months later in 1994, Mr. Athey again gave a controversial performance at an NEA-funded center, this time at P.S. 122 in New York. One of his scenes, "Dagger Brides," makes a mockery of the sacrament of Holy Communion. *The Washington*

Times describes the performance as follows: "[T]hree performers, known as "Dagger Brides," are given mock Holy Communion by Mr. Athey in the guise of a minister performing a wedding. The trio, clothed only in ornaments affixed to their bodies with hooks in their skin, spit out the unseen host, then open their mouths so Mr. Athey can run foot-long needles through their cheeks. They then begin a frenzied, screaming dance, with blood eventually streaming down their torsos as the hooks tear at their flesh." The arts center where this indignity was performed, P.S. 122 in New York, has since been given additional NEA funding.

Unfortunately, this is not an isolated example of a bigoted message being funded through taxpayer dollars. Cardinal John O' Connor is described as "that creep in black skirts" in a catalog for an exhibit funded with the help of NEA dollars. "Christ" utters obscenities and condones all types of sexual activity as consistent with Biblical teaching in another NEA-funded production.

Mr. Chairman, it is indeed ironic that nativity scenes and menorahs have been removed from the public square, but blasphemy is not only permitted, it is funded with tax dollars. Such blatant bigotry would not be tolerated if it were targeted at another protected class. In joining the call for eliminating federal funding of the NEA, William Donohue, President of the Catholic League for Religious and Civil Rights, emphasized: "We, as Catholics, have rights too, and among them is the right not to be defamed, and this is especially true when defamation is funded with government money."

Let the American Family Be the Judge, not Government Bureaucrats

For too long the federal intrusion into the family budget has risen, along with a corresponding rise in the power of the federal bureaucracy. The federal government now takes 24.5 percent of the family income in taxes, compared to only *3 percent* in 1948. The power of federal bureaucrats has reached the point where they are free to use tax dollars to fund religious bigotry, and all efforts by the taxpayers through their elected representatives to prevent this have proved unsuccessful.

It is time to let the American family, and not bureaucrats, again be the judge of cultural programs deserving of support from the family's income. Elimination of federal funding of the NEA will return this power to support or reject artists and institutions back to the family and the private market-driven sector. We urge the Subcommittee to put the American family first and eliminate federal funding of the NEA in its entirety for fiscal year 1996.

Mr. KOLBE. Thank you very much, Mr. Wittmann. You have certainly touched on one of the issues that has been more controversial around this subcommittee for the years that I have been on it and, obviously, will be again this year. We appreciate your testimony. Thank you.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: FOSSIL FUEL

WITNESS

PAUL B. TARMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, M–C POWER

Mr. KOLBE. We go next to M–C Power, Paul Tarman, President and CEO.

Mr. TARMAN. Good afternoon, Mr. Chairman. I am the President of M–C Power Corporation, and M–C Power has just one single mission, and that is to commercialize the IMHEX molten carbonate fuel cell technology.

This technology is specifically designed to satisfy the rapidly emerging distributed power market, a market driven by the recent restructuring of the electric power industry. Mr. Nimmons discussed these impacts a little earlier this afternoon. DOE recognized this market need many years ago and established a program to develop fuel cells for distributed power generation. This program is progressing very well and, if fully funded, will bring our technology to commercial readiness by 1999.

M–C Power is part of this DOE program. We were awarded this contract because of our success in a prior DOE contract in which we scaled our technology by a factor of 250; that is, from a 1 kilowatt laboratory fuel cell to a 250 kilowatt commercial size power module.

I would like to leave for you a picture of our first commercial size IMHEX fuel cell stack. This module is now in the process of start-up at the Unocal Science and Technology Center in Brea, California. I also have a few pictures of the unit in California. This is the power module which houses the stack. And this is a picture of the power module within the entire plant out in Brea.

You are looking at the largest molten carbonate fuel cell plant built today. And in fact we have advanced our technology from a laboratory curiosity to full commercial size in only about four years. That is quite an accomplishment for a small start-up company. And as mentioned earlier by Ms. Mansour, it is small start-up companies that are responsible for many or even most of the new technologies being developed in the United States today. Our final goal is a 1 megawatt commercial unit that will look something like this.

Actually, M–C Power can't take full credit for these accomplishments. They are the result of our IMHEX development team, which includes Bechtel Corporation, it is one of the premier engineering firms in the United States; Stewart & Stevenson Services Company, a world leader in the manufacture of factory assembled skid mounted power plants; and the Institute of Gas Technology, you heard from Dr. Lee earlier, which invented the IMHEX technology. All are deeply committed to our project. IGT and Bechtel are major equity partners in M–C Power and Stewart & Stevenson will market, assemble, and service the IMHEX power plants once commercialized.

Our new contract requires $23 million for fiscal 1996. I realize that this is considerably more than the DOE request would provide for M–C Power, and also more than we received in fiscal 1995. However, this amount of funding is necessary to maintain our schedule and hold costs within our current projected contracts. However, I would like to point out that this is not a forever-project. Much less money will be needed in the out years, decreasing to 19 million for fiscal 1997, 14 million for fiscal 1998, and 2 million for fiscal 1999.

Less funding for fiscal 1996 now will extend the schedule and increase the overall costs, not only to DOE, but also to our cost sharing partners. I urge the subcommittee to increase DOE's funding request for fiscal 1996 so that we can maintain costs and schedules and decrease the overall amount of money needed to commercialize what I consider a very, very valuable technology.

Thank you for my time and I would be glad to answer any questions.

Mr. KOLBE. Thank you for your testimony. It will be very helpful to us as we make these considerations in the funding for these projects.

Thank you very much.

[The statement of Mr. Tarman follows:]

Testimony of Paul Tarman, President
M-C Power Corporation
Subcommittee on Interior
House Committee on Appropriations
March 24, 1995

M-C Power's molten carbonate fuel cell is an extremely clean and efficient technology for converting natural gas, or any other source of methane or hydrogen, into electricity and useable heat.

Unlike most conventional generation technologies that involve fuel combustion, fuel cells generate an electrical current through an electrochemical reaction, much like a battery, except that we use a continuous, external source of fuel and oxygen. The electrochemical process is a significant advantage in both energy efficiency and emissions reduction over conventional technologies. Fuel cells also offer a significant advantage over many conventional generation technologies because they can be built in small, modular, standardized units in a factory, and delivered to distributed sites when and where additional electricity is needed. The challenge facing M-C Power -- supported by the Department of Energy and strong private sector cost-sharing -- is to adequately prove the value and reliability of our IMHEX® molten carbonate fuel cell, and to reduce the manufacturing costs of this new technology and its balance-of-plant equipment so that we can have a dependable product available for commercial application before the year 2000.

Throughout the course of your FY96 hearings you may be receiving testimony in support of a number of kinds of fuel cells along with our molten carbonate approach, including tubular solid oxide, planar solid oxide, PEMs, and perhaps phosphoric acid fuel cells. Although each of these technologies is based on the same electrochemical principles, we are not simply repetitious competitors. Each approach has comparable advantages over others in specific markets, based on characteristics such as cost, size, temperature and performance characteristics. Molten carbonate fuel cells, for instance, are ideal for distributed use where, along with their electricity production, their operation at 1200° F provides heat that can be economically used for additional electricity production, district heating or manufacturing processes. However, that same operating temperature makes them unlikely competitors for passenger vehicle applications.

As I am sure this subcommittee is well aware, the Department of Energy's molten carbonate fuel cell program is the only fuel cell program that is currently supporting two competing developers, M-C Power and the Energy Research Corporation (ERC). Although we are each developing the same kind of fuel cell, we take significantly different approaches to design fundamentals such as the manifolding mechanism for distributing hydrogen and oxygen throughout our fuel cell stacks, and the methods by which we convert natural gas to the hydrogen stream necessary to create the electrochemical reaction. The DOE program, to date, has maintained both companies relatively parallel in our development processes, and that competition has been valuable to M-C Power's efforts.

M-C Power's molten carbonate fuel cells are stacks of individual, repetitive components, assembled into a single unit for packaging in a skid-mounted configuration for market delivery. M-C Power's role is specifically the development and manufacturing of the fuel cell stack itself. We are supported by a very strong team that includes the Bechtel Corporation, which is responsible for engineering and design tasks for the overall fuel cell package; Stewart & Stevenson, for assembling the balance-of-plant components and packaging the entire assembly on skid-mounted units for delivery to our future customers; and the Institute of Gas Technology for advancing the electrochemical technology. Stewart & Stevenson will also be the primary marketer of our commercial fuel cells, lending their world-wide experience and knowledge to our marketing efforts. It is a strong team because it relies on the best capabilities of its individual members, each of which, in turn, are leaders in their field.

We also work closely with the Alliance To Commercialize Carbonate Technology (ACCT), from whom you have also heard testimony, which serves as a valuable conduit for market-oriented input from prospective customers, and as a useful opportunity for M-C Power to work closely with the industries represented in ACCT to help develop their confidence in the value of our product.

This is an exciting time for M-C Power. We are now in the process of starting our first 250kW power plant, which is located at UNOCAL's Science and Technology Center in Brea, California. It is the largest molten carbonate fuel cell plant ever built and the plant is powered by a commercial size power module. This module contains 250 cells, each of which is 11 square feet in area. It represents our successful scale-up from laboratory stacks of only one square foot in area, producing only 1 kW.

The purpose of the UNOCAL plant is to verify our scale-up techniques for commercial size power modules. This plant is not fully integrated, assembled and packaged as would be a commercial skid-mounted plant, and, therefore, it will not operate at maximum efficiency. Once scale-up is verified at UNOCAL, we plan to build a second, fully integrated 250 kW plant at the Miramar Naval Air Station in San Diego to verify our power plant packaging techniques and to demonstrate the optimum efficiency of IMHEX. Construction of this plant is scheduled for late 1995, with startup planned for early 1996. Our current contract with DOE will culminate in the construction and operation of a 1 MW commercial prototype plant that contains four power modules. The objective of this plant is to prove the commercial readiness of IMHEX.

For FY96, M-C Power asks that this subcommittee support a level of DOE Molten Carbonate Fuel Cell funding that includes $23 million for M-C Power. We recognize that our recommendation may raise the molten carbonate fuel cell program above DOE's FY96 request for this line item and above the current FY95 level. We recognize, as well, that this subcommittee hopes to lower, rather than increase, federal spending. Our request, however, is consistent with the funding level agreed to in our multi-year contract signed last December with DOE, and is the most cost-effective approach to develop M-C Power's molten carbonate fuel cell through the remaining stages of product development, demonstration and manufacturing cost reduction necessary to position us for commercial competition.

The DOE FY96 request for molten carbonate fuel cells, if evenly divided between M-C Power and ERC, would give each of us approximately $14 million for our FY96 program, roughly equivalent to our current FY95 support. Although that levelized funding strategy, over the course of our current contract, would provide us with approximately the same total support called for in the contract, the difference in when those funds would be available will have significant negative impacts on our schedule that will add to overall costs and cause additional delays in our commercial readiness.

At the completion of our current DOE contract, M-C Power will have provided over $33 million in private sector cofunding from perhaps more than a dozen supporters. That support, combined with the total of $71 million in DOE support, gives us a solid program. Development efforts, however, do not occur at a levelized annual rate. Our proposal relies on stronger federal support in the early years for design improvements and equipment purchases that then set the stage for out-year activities. After FY96, the federal commitment in our contract falls off rapidly, to $19 million in FY 97, $14 million in FY98, and down to $2 million in FY99, the final year of our contract. Although we understand that our FY96 federal funding peak occurs at a difficult time for this subcommittee, the funding path clearly falls off, rather than continues to escalate, after that.

As you have heard in the ACCT testimony, our primary private sector support, and our current primary future markets, are within the electric and natural gas industries. While the electric and gas industries have pledged strong cost-sharing to our program, the current uncertainties of deregulation in those industries would make it extremely difficult at this time to seek additional cost-sharing to cover short-falls in DOE funding. While those market changes will make future opportunities even greater for distributed power through the use of molten carbonate fuel cells, the temporary uncertainty regarding who will be the purchasers in those markets restricts our ability to target new cost-sharing or investment efforts.

Delays or uncertainties in the government's commitment to our efforts causes additional negative impacts. Just as many members of this subcommittee have a "Contract with America", we have contracts, too -- with suppliers whose price for their work depends on the flow and timing of our business with them, with cost-sharing partners who expect timely progress in exchange for the contributions and commitments they have already made, and implied contracts with future customers who rely on our promises today to plan their needs for the future.

M-C Power is developing a strong product for a strong market, and we ask this subcommittee to provide the federal funds necessary for us to continue our progress at the rate proposed in our contract with DOE.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: FOSSIL FUEL

WITNESSES

G.P. HUFFMAN, DIRECTOR, THE CONSORTIUM FOR FOSSIL FUEL LIQUEFACTION SCIENCE

JOHN OWENS, ASSOCIATE DEAN FOR RESEARCH, AUBURN UNIVERSITY

IRVING WENDER, UNIVERSITY OF PITTSBURGH

DICK BAJURA, DIRECTOR, NATIONAL COAL AND ENERGY RESEARCH CENTER, WEST VIRGINIA

LARRY ANDERSON, CHEMICAL AND ENGINEERING FUELS DEPARTMENT, UNIVERSITY OF UTAH

Mr. KOLBE. We have the Consortium for Fossil Fuel liquefaction Science, Mr. Huffman.

Mr. HUFFMAN. Mr. Chairman, Mr. Bevill, happy to be here. My name is Gary Huffman. I am the Director of the Consortium for Fossil Fuel liquefaction Science.

Our consortium is a research organization that includes participants from five universities. I am from the University of Kentucky. And appearing with me today are representatives from the other four schools. To my left is Dr. John Owens, who is the Associate Dean for Research at Auburn University. Next we have Professor Irving Wender, from the University of Pittsburgh. Dr. Dick Bajura is the director of the National Coal and Energy Research Center in West Virginia. And Professor Larry Anderson is from the Chemical and Engineering Fuels Department at the University of Utah.

For the past couple of years, our program has focused on a new topic, that is the problem of trying to convert waste materials such as waste plastics and waste rubber tires into oil, using direct coal liquefaction technology. We feel that the results have really been quite exciting. What we find is basically that using the right conditions and the right catalysts, you can convert these materials to oil with very high efficiency.

Plastics and rubber of course are made from oil in the first place. And our results indicate that you can recover essentially 100 percent of this oil by co-liquefaction techniques.

Now, the Pittsburgh Energy Technology Center has recognized the importance of this process, and they have now identified this topic of waste liquefaction and co-liquefaction of waste materials and coal together as the primary focus of their future liquefaction program. And as a result of that, they have gone on and they have carried out some pilot scale tests at HTI. They have also conducted a preliminary economic analysis and the results of both of these look very promising.

The economic analysis indicates that if we had a plant, we could convert waste materials and coal mixtures to oil today and sell it profitably at a price of 18 to $20 per barrel, which is the current price of oil. We believe that with further research, over the next two to three years, we are going to be able to drive that price down still further. And we also believe that within three to five years we could see the first commercial development of this process and the first construction of waste liquefaction plants.

The size of the oil resource is really quite large. If you look at just waste rubber and waste tires and waste automotive greases and oils, this would amount to about 300 million barrels of oil per year. And if we capture just a small percentage of that, say 25 or 30 percent, we would be talking about a business that would be $2 billion to $3 billion per year. Obviously, that would take a huge chunk out of our trade deficit. And it would provide thousands of new jobs all across the country. So we are very excited about this and we are asking the committee to continue funding of our program at the same level in fiscal year 1996, as they have in fiscal year 1995. That is a level of $1.7 million.

And I might mention that we cost share very heavily. Our five States put up $1.5 million to match the $1.7 million in funding that DOE provides to us. So we hope that you will be able to continue supporting us.

Thank you very much.

[The statement of Mr. Huffman follows:]

The Consortium for Fossil Fuel Liquefaction Science

University of Kentucky | University of Utah | University of Pittsburgh | West Virginia University | Auburn University

Statement of Gerald P. Huffman, Director of the CONSORTIUM FOR FOSSIL FUEL LIQUEFACTION SCIENCE before the HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

March 24, 1995

Conversion of Waste Materials into Oil by Direct Liquefaction

The Consortium for Fossil Fuel Liquefaction Science(CFFLS) is a research organization supported by the U.S. Department of Energy that includes approximately 100 participants from five universities - the University of Kentucky, the University of Pittsburgh, the University of Utah, West Virginia University, and Auburn University. DOE is supporting the CFFLS program at a level of $1.7 million in FY 95 and we are requesting the same level of support in FY 96. It should be noted that the CFFLS program is a cost-sharing program in which the five Consortium universities provide nearly dollar-for-dollar cost-sharing to match the DOE funding.

Research conducted over the past two years by the CFFLS has demonstrated that waste materials such as plastics, rubber tires, and paper can be converted into high quality oil using direct coal liquefaction technology. This could be **a revolutionary solution to waste disposal problems** that will lead to **a major new industry** providing **a new domestic source of oil**. The principal results of this research can be summarized as follows:

- Nearly 100% of waste plastics can be converted to oil by catalytic direct liquefaction.
- Tires are converted back into oil and valuable carbon black.
- Waste automotive oil and grease are excellent solvents for the process and become part of the clean oil product.
- Coliquefaction of coal with wastes enhances oil yields from the coal.
- Paper is readily converted into a mixture of oil and hydrogen-rich gas.
- The quality of the oil is as good as or better than that of imported oil.

Encouraged by these results, the U.S. DOE Pittsburgh Energy Technology Center(PETC) commissioned an economic analysis and initial pilot plant tests. Both produced promising results. The pilot plant studies demonstrated that the laboratory

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results summarized above could be successfully scaled up. The economic analysis indicated that oil produced by coliquefaction of waste plastics and rubber with coal could be sold at prices competitive with imported oil. Continued research should reduce the price still further. PETC has now identified waste-coal coliquefaction as the primary focus of the DOE direct liquefaction program and has formed a team of stakeholders to pursue research and development in this area more aggressively.

This program has the potential to provide a partial solution to our waste disposal problem and, at the same time, develop a new domestic oil resource for the United States that is truly competitive in price with imported oil. The size of the potential oil resource is substantial. Approximately 300 million barrels of oil could be produced by coliquefaction of the waste plastics, rubber, and oil generated annually in the U.S. with coal. This is roughly the amount of oil this country imports in a month. Capturing one third of this resource could **improve the trade deficit by $2 billion** and **lead to hundreds of waste disposal liquefaction plants that would create thousands of new jobs nationally.**

Not surprisingly, European and Japanese companies are beginning to move into this area. Although the U.S. currently has a lead in research in this area, several critical problems remain to be solved. These include:

- Development of improved catalysts.
- Optimization of reaction parameters.
- Research on liquefaction of mixed wastes and waste-coal mixtures.
- Research on other wastes: wood wastes, automobile fluff, yard wastes, etc.

In view of foreign competition, it is crucial to maintain the research program dealing with these problems.

To summarize, **the CFFLS program is developing the information needed to build waste liquefaction plants.** Within the next five years it could lead to:

1. A partial solution to our waste disposal program.

2. A new domestic source of oil.

3. A new industry.

4. A significant improvement in our trade deficit.

This program is highly worthy of continued Congressional support.

University of Pittsburgh

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STATEMENT OF GERALD D. HOLDER, CHAIRMAN
IRVING WENDER and JOHN W. TIERNEY

before the House Appropriations Subcommittee on Interior and Related Agencies

March 24, 1995

Mr. Chairman and Committee Members;

This testimony is in support of continued funding for the Consortium for Fossil Fuel Liquefaction Science which consists of the universities of Kentucky, Utah, Auburn, West Virginia and Pittsburgh. The Consortium, which has been funded for $1.7 million in 1995, cost shares this amount almost dollar for dollar.

The Consortium is engaged in basic and applied research to convert the accumulating amounts of waste materials including plastics, rubber tires, paper, biomass and used lubricating oils into liquids suitable for use as transportation fuels. These waste materials can be converted to enough oil to equal a month's supply of petroleum imports while reducing the need for landfilling. The Consortium is applying its background in catalysis and coal liquefaction to coliquefy wastes plus coal to produce high quality liquid fuels.

The Consortium work has shown that commingled plastic wastes can be catalytically converted to water-white gasoline of 97 octane number in a single reactor at low pressure and temperature. Advantage is taken of the fact that these wastes contain high amounts of expensive hydrogen in relation to their carbon content; indeed, plastics and rubber tires may almost be looked upon as "solidified petroleum." The high hydrogen content of the wastes makes up for the low hydrogen content of coal, so that coliquefaction of coal and wastes appears feasible from the point of view of increased energy and a clean environment. The price of the oil so obtained could compete with imported petroleum on a cost basis.

The Consortium, working with industry, Consol Inc. and The Pittsburgh Energy Technology Center, is developing the concept of coliquefying wastes and coal in local plants in areas of sufficiently large population (about 200,000 people or more). There are many such locations that could support these plants, supplying needed clean transportation fuels, creating jobs, preserving land areas, cutting down on petroleum imports and utilizing waste material plus part of our huge coal reserves Continued funding for The Consortium could make this concept a reality in the next four years

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March 20, 1995

The Honorable Ralph Regula, Chairman
Interior and Related Agencies Appropriations Subcommittee
B-308 Rayburn House Office Building
Washington, DC 20515

SUBJECT: The Consortium for Fossil Fuel Liquefaction Science

Dear Sir:

In the course of your deliberations for FY95 appropriations please be aware of the importance of current federal funding for research now under way at Auburn University through the Consortium for Fossil Fuel Liquefaction Science.

This program is insuring the continuation of research on the conversion of solid waste materials and coal into oil liquefaction. The research is being carried out by an experienced team of faculty that has more than 50 years of collective experience with this technology. Reduced federal and private funding has threatened the existence of this team and similar ones in the United States. Although significant funds are being provided by the State of Alabama for our work, they are insufficient to maintain a high quality program over the long term.

Probably the most important products of academic research are the students produced for industry and government. Dramatic decreases in federal funding for such research are threatening the production of the next generation of researchers in basic areas such as coal liquefaction and co-liquefaction of coal with waste products. Three students with advanced degrees will graduate this year from Auburn; current funding through the consortium assures additional graduates next year.

Research initiatives at Auburn are coordinated with other members of the Consortium (University of Kentucky, University of Utah, University of Pittsburgh, and West Virginia University) and focus on the co-liquefaction of coal and waste materials

A LAND-GRANT UNIVERSITY

such as plastics, paper, tires and used oil as well as direct liquefaction of coal. Significant progress has been made on the liquefaction of wastes and coal. and this process offers a solution to a significant national problem. This process also has the potential to develop into many profitable local industries since the processing is best done at the site of waste collection. The loss of funding would significantly impact the development of an important option in the solution of a national problem.

Sincerely,

John M. Owens
Associate Dean for Research

JMO/lp

National Research Center for Coal and Energy
West Virginia University

**Statement of Richard A. Bajura, Director,
Trina L. Karolchik, and George Fumich
WVU National Research Center for Coal and Energy**

before the House Appropriations Subcommittee on Interior and Related Agencies

March 24, 1995

Mr. Chairman and Committee Members:

I am offering this testimony in support of a request for continued funding for research to convert coal and waste materials into oil by direct liquefaction--a truly novel solution for providing this nation's transportation fuels through the recycling of waste materials destined for landfills. The research is being conducted by the Consortium for Fossil Fuel Liquefaction Science and is supported by the U.S. Department of Energy. The Consortium includes West Virginia University, the Universities of Kentucky, Utah, and Pittsburgh, and Auburn University and has been called a model of inter-university and government cooperative research. The Consortium received $1.7 million in FY 1995 and provided nearly dollar-for-dollar cost share as a demonstration of its commitment to this research initiative.

The National Research Council Subcommittee on Strategic Assessment of the DOE Coal Program finds, "There will be a powerful economic driving force for major expanded use of coal over the next several decades with concomitant pressures to reduce environmental impacts through improved technology." This dual economic/environmental pressure underscores the particular relevance and timeliness of the waste-coal co-liquefaction technology the Consortium is researching. Co-liquefaction can reduce this nation's continued reliance on foreign oil, while solving a waste disposal problem. The CFFLS estimates that the technology could improve the trade deficit by $2 billion and lead to hundreds of waste disposal liquefaction plants that would create thousands of new jobs nationally providing a new, domestic source of oil. An economic analysis by the Mitre Corporation showed that oil produced by co-liquefaction of coal with waste plastics and rubber could be sold at prices that compete with imported foreign oil. The U.S. DOE Pittsburgh Energy Technology Center has formed a team consisting of the Consortium, Hydrocarbon Resources, Inc., the Consolidation Coal Company, and PETC in-house researchers to aggressively pursue this new technology.

The U.S. currently leads the world in developing this technology, but European and Japanese companies are beginning to move. The Consortium represents one of the last remaining efforts in the U.S. to preserve and further our scientific understanding of the economically viable development of coal-based liquid fuel. Coal is our nation's most abundant fossil fuel. More minable coal reserves exist in the U.S. than anywhere on the globe. And now the Consortium is developing a technology that not only harnesses our largest domestically available energy resource for transportation, it is a technology that can partially solve our increasing waste disposal problems at the same time. Nearly 100% of waste plastics can be converted to oil, rubber tires can be converted to oil and valuable carbon black, waste automotive oil and grease act as excellent solvents needed for the process, and coal converts more completely to oil when co-liquefied with plastics. The quality of the oil produced by co-liquefaction is as good as, or better than, that of imported oil.

With continued funding, the Consortium can develop the information needed ultimately to build waste liquefaction plants. Support for the continuing this valuable research effort is a small, positive step this country can take to develop a technology that promises to be one of this nation's energy options.

THE UNIVERSITY OF UTAH

March 16, 1995

The Honorable Ralph Regula
Chairman
Interior and Related Agencies
  Appropriations Subcommittee
2333 Rayburn House Office Building
Washington, D.C. 20515-1702

RE: Testimony Regarding the Consortium for Fossil Fuel Liquefaction Science

Dear Congressman Regula:

The 1993 NRC report "Advanced Exploratory Research Directions for Extraction and Processing of Oil and Gas" concludes that the use of our plentiful coal reserves as a source for oil and gas is inevitable as well as technically and economically feasible, and recommends that high priority be given to basic and exploratory research activities in this area within the overall DOE program. Coming from the oil and gas research and development community, which has traditionally been in strong competition with the coal R&D field, this recommendation underscores the desperate situation our nation could face, in the not too distant future, if coal were to be left out of the overall transportation fuel equation.

Working together as a team with the Pittsburgh Energy Technology Center over the past eight years, the more than fifty faculty members and a total over 200 students at the five participating universities (the Consortium for Fossil Fuel Liquefaction Science, CFFLS) have succeeded in demonstrating the feasibility of producing high value liquids from coals of widely different quality, e.g., with regard to oxygen, sulfur and ash content. Moreover, some of these results were obtained at relatively low process temperatures and pressures while reducing the consumption of hydrogen and the need for costly, exotic catalysts. As a result, several coal liquefaction concepts and methods explored by CFFLS members are now ready for further industrial development and eventual commercialization. Unfortunately, the continued low price of petroleum crude on the world market has, thus far, prevented coal-derived liquids from becoming economically competitive other than in the regions of the globe affected by OPEC enforced oil embargoes or by exceptionally high oil import tariffs.

New market forces are being created and shared by the growing public demand for recycling of used petrochemical products, such as waste plastics and rubber tires, as an alternative to the increasingly costly and controversial use of landfills or incinerators. Although a small proportion of "prime quality" waste plastics can be recycled directly by the plastics industry, most of the discarded plastic articles and rubber tires contain too many

**Vice President
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undesirable components. Consequently, these materials require the development of special liquefaction methods capable of overcoming many of the same processing problems initially faced by researchers in the field of coal liquefaction. By applying the lessons learned from coal liquefaction to the processing of waste polymers, an important savings in time, effort and cost can be achieved.

In addition to this technology transfer opportunity, the chemical and physical nature of coal and waste polymers do complement each other in several ways. This has led the DOE/CFFLS team to pursue the concept of co-liquefaction of coals and waste polymers where the coal component provides a stable and plentiful bulk feedstock and the waste polymer fraction contributes a cheap source of hydrogen, process solvents and, possibly, catalyst. Experiments by several CFFLS member universities have confirmed the potentially synergistic action of both components during the co-liquefaction procedure. Consequently, co-liquefaction studies of coal and waste polymers are at the center of the joint research and development program of the Pittsburgh Energy Technology Center and CFFLS.

A recent economic analysis by the MITRE Corporation has estimated that this co-processing technology may further reduce the cost of producing liquid fuels to a price comparable to today's oil prices. Japan, Germany, England and Italy are now beginning to seriously evaluate this new technology. Fortunately, the foreign research base for this technology has not advanced as far as that being developed by the CFFLS, but major efforts are being considered in Japan to vigorously pursue this technology.

Adoption of a coal/waste polymer co-liquefaction path would offer the US an affordable, environmentally sound solution to the waste polymer recycling problem while simultaneously building up a strategically important coal liquefaction capacity. Simultaneously, the nation's long term interests in presenting a future generation of Americans with viable options for the domestic production of transportation fuels and petrochemical substitutes, in the face of dwindling world supplies of oil and gas, will be well and wisely served.

Yours respectfully,

Ronald J. Pugmire, Ph.D.
Associate Vice President for Research

RJP/se

Mr. KOLBE. Yes, Mr. Bevill.

Mr. BEVILL. Mr. Huffman and the other gentlemen there, I just want to commend you for what you are doing on this program. I know the Energy Department is very—has been very supportive of it. I believe I have occasion to deal with them on this.

Mr. HUFFMAN. Thank you very much, Mr. Bevill. We appreciate your support over the years.

Mr. KOLBE. This really is one of the very interesting projects, and certainly as somebody who has been very involved in trade and aware of very acutely aware of the component of our trade deficit that comes from energy importation, the impact this could have is very interesting.

Thank you very much.

FRIDAY, MARCH 24, 1995.

OFFICE OF SURFACE MINING

WITNESS

GREGORY E. CONRAD, EXECUTIVE DIRECTOR, INTERSTATE MINING COMPACT COMMISSION

Mr. KOLBE. Now we have the Interstate Mining Compact Commission, Gregory Conrad, Executive Director.

Mr. CONRAD. Thank you, Mr. Chairman. My name is Greg Conrad. I am Executive Director of the Interstate Mining Compact Commission, which is a multi-State governmental agency that represents the natural resource and environmental protection divisions of State governments.

Deficit reduction has taken on a whole new meaning in this Congress, especially with regard to many of the programs in the Department of Interior. I am here today to address the Office of Surface Mining portion of the DOI budget and the disturbing trend which we as States see with regard to the shrinking funds for State regulatory programs under the Surface Mining Act.

It is important to remember, we believe, that we are the frontline regulatory authorities under the act, not OSM. We are held accountable to the coal field citizens and to you for getting the job done, which includes both assuring adequate environmental control of active operations, and the cleanup of old abandoned mines. We have consistently made the point about the importance of adequate funding of the Title IV and V regulatory programs over the years.

Now OSM as an agency is facing serious budget cuts and we are very concerned about the spillover affects and impacts on our funding and the valuable assistance we receive from OSM in the way of technical support, training, and automatic data processing. We suspect that even if funding for our grants is preserved, which of course is essential, that significant cuts to OSM's budget will result in a realignment of remaining OSM resources away from State support and toward agency preservation. The real losers in all of this, of course, will be the very folks for whom the act was passed, the coal field citizens.

It is time to reverse the debilitating trend of shrinking State funding for this important program and we urge the subcommittee, as you have in the past, to support this vital program and in particular the State regulatory programs under Titles IV and V of the Surface Mining Act.

Mr. REGULA [presiding]. Okay. Thank you very much.

[The statement of Mr. Conrad follows:]

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Testimony of
Gregory E. Conrad
Executive Director
Interstate Mining Compact Commission

Concerning the
Fiscal Year 1996 Budget Request
of the
Office of Surface Mining

Before the

Subcommittee on Interior
House Appropriations Committee

March 24, 1995

Serving the States for 25 Years/1970–1995

My name is Gregory E. Conrad and I am Executive Director of the Interstate Mining Compact Commission. I appreciate the opportunity to present this statement to the subcommittee regarding the views of the Compact's member states concerning the Fiscal Year (FY) 1996 Budget Request of the Office of Surface Mining (OSM).

The Compact is comprised of 18 states that together produce some 70% of our Nation's coal as well as important non-coal minerals and that represent the eastern and midwestern regions of the country. Participation in the Compact is gained through the enactment of legislation by the member states authorizing their entry into the Compact and they are represented by their respective Governors who serve as Commissioners.

The Compact's purposes are to advance the protection and restoration of land, water and other resources affected by mining through the encouragement of programs in each of the party states that will achieve comparable results in protecting, conserving and improving the usefulness of natural resources and to assist in achieving and maintaining an efficient, productive and economically viable mining industry.

The Commission has testified before this subcommittee on several occasions over the years and has appreciated the subcommittee's consideration of our comments and concerns. Given the special attention that Congress is directing toward the federal budget this year in terms of deficit reduction goals, the OSM budget has been targeted for significant adjustments. Our purpose today is to remind the subcommittee of the critical role played by the states under the structure of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and to urge that the OSM budget be aligned so as to support the continuing work of the states.

As Congress proceeds to make the difficult funding decisions required under the deficit reduction plan, we believe it is essential that the larger goal of the surface mining program be kept in mind. In the final analysis, the objective of the federal and state governments under SMCRA is to preserve the environment where active mining operations occur and to enhance the environment through the remediation of past problems associated with abandoned mines. Given this overall programmatic goal, we assert that funds should be appropriated by Congress in a manner that best accomplishes this goal--and that best serves the American people. We believe that an analysis of the purposes of SMCRA and its operational structure confirms that states are to take the lead in pursuing this goal and that state programs for active and abandoned mines are to be adequately funded to accomplish this objective. Furthermore from a purely budgetary perspective, experience demonstrates that it will cost the federal government significantly more to undertake this task than to partially fund the existing 23 state regulatory programs. Experience has also shown that the cost of maintaining even the existing federal regulatory program remains high and in some cases is out of line with state expenditures and responsibilities under SMCRA.

Under the provisions of the Surface Mining Control and Reclamation Act of 1977 (SMCRA), primary regulatory authority for the implementation of the Act was vested in the states upon approval by the Secretary of a state regulatory program. As one of the Act's purposes, Congress also provided for assistance to the states in developing and implementing regulatory programs to achieve the purposes and objectives of SMCRA. (Section 102(g)). More specifically, in section 705, Congress authorized the Secretary to make annual grants to the states for the purpose of assisting them in developing, administering and enforcing their regulatory programs under Title V of the Act.

The states have come to rely on these Title V grants as a critical portion of the funding necessary to carry out their responsibilities as primary regulators under SMCRA. The necessity of this funding has taken on increased importance as state budgets struggle to keep pace with inflation and meet projected regulatory needs. Without these grants, it is unlikely that the states would be able to maintain the comprehensive, high quality regulatory programs expected under the provisions of SMCRA.

In the FY 1996 budget proposal, OSM reports that the states had requested an amount for Title V state regulatory grants of $51.6 million based on their projected program implementation needs. Based on the documents provided by OSM to Congress, OSM's FY 1996 budget request is seemingly in line with the state's request and supposedly reflects OSM's recognition that the states need adequate funds to administer their regulatory programs. What OSM fails to mention in its budget justification document, is that the amounts of grant moneys allegedly requested by the states and reported by OSM are upwards of 10 % less than the actual requested amounts that were provided to OSM by the states some 18 months ago. OSM justifies these discrepancies by stating that the amounts are estimates which are reevaluated and readjusted by OSM field office and headquarters personnel as necessary. However, in most instances, the states have not been given an opportunity to rebut these adjustments and do not necessarily concur with them. As a result, although the requested amount of $51.6 million appears to be in line with the states' requests, there are meaningful gaps between the requested state amounts and the readjusted OSM amounts. In fact, from FY 1991 through the FY 1996 request, Title V grants have decreased at a rate of slightly more than one percent annually.

Meeting the states' estimates of necessary funding is essential to offset the rising costs associated with the implementation of regulatory programs which includes such activities as reviewing mine permit applications, inspecting surface mining operations, and maintaining enforcement programs. Although we would like to be encouraged by OSM's budget request, we are concerned that OSM is initiating a trend supposedly justified by deficit-reduction belt tightening that will result in continual incremental decreases in the amounts being granted to the states. When factored together with the rising costs associated with implementing state programs, the compounded impact will soon result in less than effective state regulatory programs and concomitant impacts on the ground. We therefore urge the subcommittee to approve the amount requested but caution against debilitating reductions in state grant amounts. These "freezes" on state regulatory grants cannot continue indefinitely without damaging the effectiveness of the program on the ground.

Some recent budget proposals have suggested significant reductions in OSM's budget for FY 1996--upwards of $30 million in one case. While we can appreciate the necessity of containing the cost of federal regulatory programs, Congress should be cautious about emasculating the effectiveness of the overall regulatory program. It is essential in this regard that funding for state programs be preserved since the states act as the front line regulatory authorities under SMCRA. It also is important to structure any realignment of OSM's budget for the federal regulatory program in such a way that the valuable OSM activities which support and enhance state programs are not undermined. These include technical training, the Technical Information Processing System, the Applicant/Violator System (AVS), the COALEX Legal Research System), and a properly focussed and limited evaluation of state programs.

In addition to adequate funding of their Title V regulatory programs, the states are equally concerned about the effectiveness of the state/federal relationship called for under SMCRA. Congress incorporated the concept of cooperative federalism in SMCRA because of its belief that the states were in the best position to regulate mining operations within their borders while at the same time recognizing the need for a limited federal oversight role. Although this scheme of allocated governmental authority breeds a natural degree of tension between state and federal regulators, the partnership of governments envisioned by Congress can and does work in the day-to-day implementation of SMCRA when states and OSM are communicating, coordinating and cooperating. In the long run, no amount of funding--be it federal or state--can take the place of an effective governmental relationship in terms of accomplishing the purposes and objectives of SMCRA.

OSM has made meaningful strides under its new leadership to incorporate the views and input of the states in the course of its "reinvention of government". This is as it should be given the dynamic relationship between the state and federal governments. In particular, OSM has undertaken several "Task Force initiatives" that directly impact the state/federal relationship and the effective implementation of SMCRA. These include federal oversight of state programs, use of Ten-Day notices in primacy states, handling of citizen complaints, prediction and treatment of acid mine drainage at active mining sites, strategic planning and enhancements to the Applicant/Violator System (AVS). These initiatives address many of the critical issues facing the states and OSM today and we have appreciated OSM's recent willingness to work with the states to explore potential solutions to these complex matters of governmental responsibility. We trust that OSM will continue to operate in an environment of openness and congeniality with the states and will not be inhibited by inapplicable procedural roadblocks to effective cooperation and communication.

The Compact states also urge the subcommittee to fully fund the Title IV program for reclamation of abandoned mine lands (AML) by appropriating adequate monies to support all state AML programs. As with Title V regulatory programs, we must keep in mind the overall goal of SMCRA, which is to deliver effective service to the Act's customers--the coal field citizens. It is important in this regard to examine all SMCRA program components with the objective of maximizing SMCRA services and benefits to our customers under Titles IV and V and to deliver those services in the most cost-effective and efficient manner. We assert that the states have been and continue to deliver these benefits and services through their approved state programs. However, with regard to Title IV funding in particular, we are seeing less and less on-the-ground reclamation per dollar spent as states struggle to maintain and implement their basic AML delivery system with decreasing amounts of money. This is especially true for smaller (minimum) state programs where a 25% reduction in funding translates to significantly less money being available for on the ground reclamation.

The AML program is administered almost entirely by the states and is responsible each year for the reclamation of hundreds of acres of abandoned coal mine areas along with the elimination of hazards to the public such as open adits and dangerous highwalls and the reduction or elimination of water pollution associated with acid mine drainage. It is incredibly difficult for a state to effectively manage a program such as that provided under Title IV without the ability to rely on adequate, certain and consistent funding from year to year. Over the years we have continued to see the funding for state AML programs reduced while OSM's own costs continue to increase. This is occurring at the same time that the states are assuming more and more responsibility for actual implementation of the program, including the emergency AML projects. We therefore urge the subcommittee to restore the state AML grants to a level of at least $165 million (including a minimum of $2 million per state), which will allow the states to effectively and efficiently manage their programs and to accomplish the valuable work under those programs. Increased funding will also serve as a significant economic stimulant, generating hundreds of jobs associated with increased AML work. Finally, it should be kept in mind that annual AML funding has become increasingly important with the application of the allocation formula contained in the Abandoned Mine Lands Act of 1990 which became effective on October 1, 1991, particularly as it affects state grants. In fact, perhaps the Congress should consider eliminating these constraining allocation percentages in favor of an AML block grant concept. Affording states the flexibility to decide local priorities for all expenditures would be more efficient and more responsive to the needs of coal field citizens, whom the AML program is designed to serve.

We also support the resolutions and positions of the National Association of Abandoned Mine Land Programs concerning adequate funding for state programs under Title IV.

One of the most successful programs of technical support for the states undertaken by OSM is the development of the Technical Information Processing System (TIPS). This national computer system is operated by OSM for use by the states in carrying out their technical regulatory responsibilities under SMCRA. TIPS assists in making technical decisions associated with permit reviews; performing cumulative hydrologic impact assessments; quantifying potential effects of coal mining; quantifying revegetation success; assisting in the design of AML projects; and preparing environmental assessments and environmental impact statements.

We urge the subcommittee to continue to support full funding for TIPS. In particular, we request that funding be provided for training on how to utilize new enhanced TIPS workstations. Without providing training on the new TIPS enhancements, states will not be able to make the most effective use of the system. This area can be a "white hat" program for OSM if adequate funds are provided for OSM to accomplish its objectives and if the agency, in turn, administers the program effectively.

We also urge the subcommittee to restore funding for state employees to attend other OSM technical training sessions. OSM has proposed a reduction of $65,000 for FY 1996 and further indicates an intention to phase in a cost-sharing mechanism whereby the states will be responsible for 50 percent of the cost for their employees to attend training sessions. This would negate the economies of scale that have been realized through OSM's ability to secure low-cost travel. It will also limit the benefits of joint OSM-state training. As OSM notes in its budget justification document, "the most important product of the training program has been the steady improvement in the regulation and reclamation of surface coal mining. These successes have been largely due to the increase in staff technical knowledge, the improvement of relationships among Federal and State personnel, and the improvements in staff ability to make sound evaluations and decisions." Given state budget constraints, travel to OSM training sessions is impossible without federal funding. If OSM persists in reducing these funds for state travel, it is unlikely that states will be able to benefit from this much needed service.

With regard to the COALEX Legal Research System, we urge continued funding for this valuable research tool. Both the states and OSM continue to make use of this computerized legal research system on an almost daily basis. The system provides searches to yield complete and accurate data in minutes, thereby eliminating the need for staff to manually search through volumes of documents. As implementation of SMCRA becomes more and more complex, the need for COALEX has increased. The states, in particular, have become reliant on the system's ability to assist us with the implementation of our programs and to address the myriad compliance actions that attend enforcement of our programs.

Finally, we urge continued funding of the Small Operators Assistance Program (SOAP), which OSM has proposed to eliminate as of this year (except for carry over funds). This program is critical to the permitting of remining operations by small operators, especially in terms of water quality background analysis. Without financial assistance to undertake these expensive analyses, small operators will be unable to submit complete permit packages for potential remining operations. This will, in turn, result in additional burdens on state and federal AML program funds as these approved remining operations will be unavailable to correct problems that currently are on the AML inventory. Although OSM has characterized SOAP as a "subsidy", it often serves as an incentive to encourage the remediation of AMLs through active remining operations, thereby reserving AML moneys for more critical problem areas.

The Compact states also wish to note their support of the valuable research and technical assistance they receive from the Bureau of Mines. The Bureau is active on a variety of important research issues that directly impact the states, such as blasting damage, subsidence impacts, hydrologic impacts, and acid mine drainage. The technical expertise resident in the Bureau is of the highest quality and the states have developed respect for and confidence in the Bureau's work. We are especially supportive of the research work conducted by the Bureau in the area of abandoned mine lands and the policy of the Bureau to incorporate state input into the research decision making process.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: COAL LIQUEFACTION

WITNESS

ALFRED G. COMOLLI, PRESIDENT, HYDROCARBON TECHNOLOGIES, INC.

Mr. REGULA. Our next testimony is Hydrocarbon Technologies. Welcome.

Mr. COMOLLI. Mr. Chairman and Members of the subcommittee, as President of Hydrocarbon Technologies, Incorporated, a small employee-owned company, I am here to ask for your consideration of a proposal to provide funding for direct liquefaction and the co-liquefaction and recycle of waste plastic, other municipal and industrial wastes, with coal and heavy oil.

Our request is for an appropriation and investment of $5 million per year for four years, for research and development and proof of concept operation.

[The statement of Mr. Comolli follows:]

TESTIMONY ON DIRECT LIQUEFACTION AND CO-LIQUEFACTION OF WASTE PLASTICS AND OTHER MUNICIPAL WASTE

BEFORE THE HOUSE APPROPRIATION SUB-COMMITTEE ON INTERIOR AND RELATED AGENCIES

The Honorable Ralph Regula, Chairman

Alfred G. Comolli, President
Hydrocarbon Technologies, Inc.
P.O. Box 6047
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March 24, 1995

Alfred G. Comolli
President, HTI

TESTIMONY ON DIRECT LIQUEFACTION AND CO-LIQUEFACTION OF WASTE PLASTICS AND OTHER MUNICIPAL WASTE

Forward

My testimony today addresses the Department of Energy's (DOE) Fossil Energy Research and Development appropriations and the need to add funds for recycling of plastic and organic wastes. Hydrocarbon Technologies, Inc. a small U.S. employee owned business, asks the sub-committee to examine the role direct liquefaction can play in helping to solve our waste disposal problems in an environmentally responsible and energy efficient manner. We ask for your support in the continued development and demonstration of this new United States technology under the DOE Fossil Energy Program.

Our request is for an appropriation and allocation of $5.0 million per year for four years for Research, Development and Demonstration of the conversion and recycle of waste from plastic, tire, automotive and municipal sources co-mingled with coal and heavy oils. The total 4 year, $25 million, program would include an alliance of Hydrocarbon Technologies with the University Consortium for Fossil Fuel Science (Universities of Auburn, Kentucky, Pittsburgh, Utah and West Virginia). Pittsburgh Energy Technology Center (PETC) and private industry sponsors with appropriate funding for the University participants.

Scientists at the Consortium for Fossil Fuel Liquefaction Science (CFFLS), PETC and HTI are very excited about the environmental and economic prospects of this new program and its implications for the effective and energy efficient recycling of random wastes.

Background

Through the efforts of the U.S. Department of Energy at the Pittsburgh Energy Technology Center and Consortium for Fossil Fuel Liquefaction Science (CFFLS) and HTI, a new and promising application for direct liquefaction has been found: The combined recycling of random waste plastics and waste hydrocarbons with coal to produce clean transportation fuels and to recover the starting chemicals used for production of new plastics.

The U.S. generates about 45 million tons of hydrocarbon wastes and 73 million tons of paper waste per year. This waste is nearly half of the total waste produced in this country, amounting to an estimated 4 lbs of garbage per person per day. Currently, disposal of these wastes represents both a significant cost ($3 billion/year), a health hazard, and greenhouse gas emitter using conventional disposal methods, such as land filling and incinerators.

The approximately 20 million tons of plastic waste generated in this country are discarded after use and end up in sanitary landfills or are reused or recycled. With existing methods only 4% of the plastics are recycled or reused. Waste plastics occupy about 11% by weight and 21% by volume of U.S. landfills.

In the last decade, about 40% of the U.S. landfills were filled and closed and the remaining ones are expected to be filled by the end of the century. Landfills are no longer a satisfactory means for the disposal of plastic waste and such disposal is a serious environmental concern both for ground and air pollution.

None of the current options for disposal of plastic wastes appears to be economically viable nor environmentally responsive. However, recent work, sponsored by the United States Department of Energy, indicates that the application of direct liquefaction should be considered as a solution for waste disposal in that the separation of wastes by resin type is not required. All the feed is converted to basic petrochemicals which can be used to generate transportation fuels and feedstocks for the production of virgin plastics in an environmentally safe and benign manner.

Process

Direct Liquefaction is a liquid phase hydrogenation process that takes place at temperatures of about 800°F and pressures of 2,000 psig. Under these conditions, large molecules are cracked, hydrogen is added and sulfur, nitrogen, and chlorine, etc. are easily separated and recovered after conversion to their basic hydrogenated form. Also, because the process is contained under pressure, all gases and inert components can be captured and reused if desired. Additionaliy direct co-liquefaction is very energy efficient, with efficiencies of greater than 85%.

The recycling of mixed waste plastics and waste rubber has been successfully demonstrated at a 3 ton/day scale at Hydrocarbon Technologies in Lawrenceville, New Jersey. A total of 15 tons of plastics, coal and tire waste were converted in a direct co-liquefaction process producing a clean distillate with less than 10 ppm sulfur and nitrogen. It was observed that the fully converted plastics and rubber contributed to a considerably lower hydrogen usage while maintaining a high level of coal conversion thus lowering the cost of the fuels produced.

Rationale

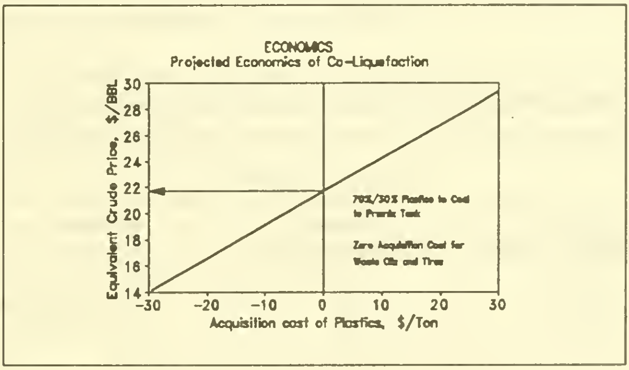
On a conversion to transportation fuel basis the recycle and conversion of waste plastics, oils, tires and organic wastes with only 50% waste recovery will supplement 10% of our daily transportation fuel requirement (See Table 1 following).

TABLE I
HYDROCARBON-BASED WASTE MATERIALS GENERATED IN THE UNITED STATES

Waste Type	Quantity Per Year	Oil Equivalent Million Barrels/Year	Hydrogen Content WT%
Plastics	16.2 Million Tons	100	13.3
Used Waste Oil	1.4 Billion Gal	33	13.0
Rubber Tires	350 Million PTE*	8	10.5
Other Organic	34.4 Million Tons	212	10.0
Total		353	
Total with Coal (1:1)		706	
Total at 50% Waste Recovery		353 (About 10% of daily Transportation Fuel Use)	

* Passenger Tire Equivalents

A techno-economic analysis for a site specific waste/coal direct liquefaction plant at 10,000 bbls/day integrated with an oil refinery with waste costs at −25 to +25 $/ton shows an average required selling price at 15% ROI of about $22.00 per barrel. If waste tires were not included and if high value plastic feedstocks are recovered this price would be less than $20/bbl. This selling price would be in the competitive range by the end of this century and if the environmental cost benefits of recycling are included, this route is effective today.



In Germany, Veba AG is leading the rush to commercialize its direct liquefaction hydrogenation process by trebling the capacity of its 40,000 metric ton/year plant in Dűsseldorf. Japan is formulating similar plans for its 150 ton/day coal liquefaction pilot plant in Kashima. The United Kingdom and Canada are also examining the direct liquefaction route to basic petrochemicals. It is anticipated that the emerging nations, Korea, Taiwan, China and India will also be addressing their recycling, energy and environmental needs through direct liquefaction.

In order to maintain the United States' competitive edge in direct coal liquefaction and waste recycling, it is essential that the U.S. government continue supporting the development and demonstration of this versatile technology. We must awaken to the realities of world energy needs and our enormous waste disposal problems. Direct liquefaction can assist in the solution of our waste disposal problems, create a new industry and jobs, and reduce our need to import energy and narrow the trade gap. Let us continue to lead the world in the application of direct liquefaction technologies.

COAL-WASTE CO-PROCESSING PROGRAM

Program Goals

To develop economically acceptable, environmentally advantageous technologies to produce feed stock for premium transportation fuels from mixtures of waste materials and coal. The waste materials considered in this program are hydrocarbon based (plastics, rubber, waste oil, organic waste) and paper.

Specific Objectives:

To accumulate technological and economic data required to design the first 5,000-10,000 bbl/day commercial plant (or plants) to produce premium transportation fuel feed stock from waste and coal.

To identify and solve any environmental problems associated with the new technology.
To identify industrial partners and other potentially co-interested governmental agencies.
To organize a Business Consortium and financing to build and operate a commercial plant.

RECOMMENDED BUDGET

Phase 1 Advanced Research & Development	AR ($MM) Consortium and Others	R&D ($MM) HTI and Others	
FY 1996	2.5	5.0	Includes operating at 4 tons/day
FY 1997	1.5	6.0	
FY 1998	1.0	4.0	
FY 1999	1.0	4.0	
	6.0	19.0	Total $25 MM
Phase 2: **Demonstration And Commercialization** The size and budget dependent on Industry Participation			

We ask the Committee to recommend maintenance of the Administrations budget for direct liquefaction and to provide the above additional support to continue and accelerate this very valuable program.

Mr. REGULA. Is this a new project?

Mr. COMOLLI. This is a continuation of direct liquefaction co-liquefaction, but it is branching off into a new area where we co-liquefy waste materials with coal to produce synthetic fuels and chemicals.

Mr. REGULA. Okay.

Mr. COMOLLI. So it is a brand-new direction for co-liquefaction or direct liquefaction.

The total program, the speakers just prior to myself, the university consortium, fossil fuel science, had a similar presentation. They are working in a similar area. So what we are looking for is a total appropriation of $25 million, which will support the efforts at hydrocarbon technologies, at the universities of Auburn, Kentucky, Pittsburgh, Utah, West Virginia, and at PETC and with private industry support also.

Mr. REGULA. How much would be matched?

Mr. COMOLLI. We have not—we are trying to formulate partnerships with private industry and plastics associations now. So that is coming down the line. Right now we need some initial monies to get this program started.

Mr. REGULA. So there wouldn't be any up-front match?

Mr. COMOLLI. We—we as a small company do provide 20 percent cost sharing for direct liquefaction, we have up to the present time. And we look to continue that type of support.

Mr. REGULA. Okay.

Mr. COMOLLI. And we look to get additional support from the Plastics Council, which include the various automotive companies and plastic manufacturers.

Mr. REGULA. Is this because this technology would produce the plastics or you reutilize them?

Mr. COMOLLI. The technology will produce synthetic fuels and also chemicals which can be recycled back into plastics. So we are looking at maybe 20 or 30 percent recovery of the monomers that make plastics from this recycling effort.

Mr. REGULA. What would you combine with the coal? Paper or——

Mr. COMOLLI. Coal can be combined with paper, plastics, tires, municipal wastes, which has been treated, and industrial wastes which have been pretreated and carbonized.

Mr. REGULA. Anything that has a carbon base?

Mr. COMOLLI. Anything that has a carbon base.

Mr. REGULA. And then you would produce a fuel?

Mr. COMOLLI. Primarily a fuel, but also chemicals, you would also be able to separate 20 to 30 percent of that stream as chemicals.

Mr. REGULA. The fuel would be in a liquid form?

Mr. COMOLLI. All in liquid form, very pure.

Mr. REGULA. What is the potential application of that fuel in the commercial market?

Mr. COMOLLI. Okay. The fuels we are producing now, we have produced—we ran at 3 tons per day testing plastics and coal, we produced a diesel fuel with 10 PPM nitrogen and sulfur, a very, very clean——

Mr. REGULA. So it could be used in the diesel engines?

Mr. COMOLLI. Diesel engines or as gasoline.

Mr. REGULA. How's the cost? Of course that is going to be the big factor.

Mr. COMOLLI. Cost with coal was about $30 per barrel, with midwestern coal. The cost with coal and heavy oil was about $25 a barrel. But the cost with plastics, taking into account the tipping fee, you are looking at a cost from $14 to $22 a barrel.

Mr. REGULA. You are getting competitive.

Mr. COMOLLI. So you are competitive. So it is a new industry that will provide fuel. We are looking at I think Dr. Huffman said 300 million barrels of imported oil, looking at 350 million barrels of imported oil being displaced by the conversion of plastics and municipal and industrial waste. And that would be—come out to about 10 percent of our transportation fuel needs.

Mr. REGULA. Well, it is an interesting concept. Our problem of course is going to be having enough money to spread around.

Mr. COMOLLI. I realize that, but this is a new technology, one that will certainly give us a return for the money we have put into direct liquefaction.

Mr. REGULA. Help with energy independence.

Mr. BEVILL. Mr. Chairman.

Mr. REGULA. Yes.

Mr. BEVILL. If I can, I am just curious. I know you would be familiar with the five universities that just testified on the co-liquefaction, and I am curious to know, is this a duplication of what they are doing?

Mr. COMOLLI. No. We are the next step along the way. They do the basic research. We do the bench scale and the proof of concept demonstration of their technology. So we are working together. We have an alliance and a partnership and work this whole thing through the line.

Mr. BEVILL. I see. Thank you.

Mr. REGULA. Thank you very much for coming.

Mr. BAJURA. Chairman Regula, if I could offer a comment that the universities will provide about $1.5 million a year in cost sharing, if we continue in the program.

Mr. REGULA. Okay, very good. Thank you.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: ENERGY EFFICIENCY

WITNESS

MICHAEL R. MULLER, ASSOCIATE PROFESSOR, RUTGERS

Mr. REGULA. Rutgers, I assume this is Rutgers University.

Mr. MULLER. Yes. Actually, Rutgers, the State University of New Jersey.

Mr. REGULA. I have heard of it. When I was a State legislator, I was in their outreach program. I can't think of the name of the person that ran it at the time. But they picked a couple from each State each year to go to Florida and learn how to be better legislators. And it was a Rutgers program, so I am familiar with you.

Mr. MULLER. Great. It is an honor to have this opportunity to address you today. I am here to speak about the EADC program, run out of the Office of Industrial Technologies, which is part of that Office of Energy Efficiency and Renewable Energy. This EADC program provides money to universities with engineering schools to have teams of faculty and students perform energy audits at nearby small- and medium-sized manufacturers. It is not a new program. Started small, it now has 30 schools.

I established one of these EADCs at Rutgers in 1986 and ran it through 1992, when I took on some duties in the field management of the program. Clearly a major benefit of the program is its service it provides to the small- and medium-sized manufacturer. The numbers speak for themselves. Typical savings, $30,000 per year to the manufacturers served, and those savings continue over years. And that is several times the cost of the audit. Factories are making more money, paying more taxes, so it seems to me to be a very good investment for the taxpayer.

But with my few minutes today, I want to stress some of the impacts the program has on people other than the manufacturers served. Most important of these are the students. Each EADC center around the country hires several students. Typical numbers, about a dozen. And these students are all paid. So some of our center directors end up spending about two-thirds of the resources directed to them towards student salaries.

But that is not just what the students get. The students get a lot of exposure to practical applications. They get to work closely with faculty. If you look at the list of our universities, there is a lot of them that are major State universities like Rutgers. We have large class sizes and faculty are very busy doing a lot of things. And that one-to-one student faculty interaction is a hard thing to come by. And this program provides for a large amount of that stuff. And it makes our students employable.

It is a very proud thing that every one of my students whoever worked for me has had no trouble leaving Rutgers and getting a job. We looked at a recent University of Pennsylvania survey from employers who were sort of dissatisfied with the preparation of students coming out of the colleges. There is not enough practical to match the theoretical. And this program is doing that and I would like to point that out.

The other thing is that we are really attracting the best of the best. Our universities are really the top schools in the Nation; the University of Michigan, Texas A&M, Georgia Tech, Oregon State. You know, we can—whenever I mention the names, most people would recognize them as being top universities. And within those universities, we are getting the best of the students.

And the area of manufacturing and energy management is not really a very glitzy area. They would rather come in mechanical engineering, say, and work on an aerospace plane or send someone to Mars. But this program attracts them originally, and then they are hooked because of the challenges in this area.

Universities are benefitting because, again, State universities have a service mission, and the EADC helps universities meet that mission. And I will be honest with you, it is a good source of research ideas. I have several projects going on at Rutgers now which are directly related to observations I made while doing these energy audits at Rutgers. I have benefited by having a nonbiased voice. We are in an intense industry.

Mr. REGULA. You have one minute.

Mr. MULLER. I will make it. We can talk fast. But we have an unbiased voice with these faculty members that is not otherwise available in a very highly competitive industry. And we are also doing a great deal in terms of getting this information from these energy audits out on the information super highway.

We run the database at Rutgers. We have had in the last six months 500 people access the database. Nineteen countries are users, a couple of international agencies. And so my view is it is a win/win/win/win/win type of program. Every aspect of it, people are getting something out of it. And I urge the committee to support it in 1996.

[The statement of Mr. Muller follows:]

Testimony on The Energy Analysis and Diagnostic Center Program Before The House Appropriations Subcommittee on Interior and Related Agencies

By
Dr. Michael R. Muller
Associate Professor and Director
Office of Industrial Productivity and Energy Assessment
Rutgers University, New Jersey
March 24, 1995

My testimony addresses the Department of Energy's Energy Analysis and Diagnostic Center Program which is one part of the industrial energy efficiency efforts funded by the Office of Energy Efficiency and Renewable Energy. Proposed FY 1996 funding for this program is $8.1 million with additional resources requested from the Climate Change Action Plan (CCAP) of $1.0 million. I would like to present to the committee considerations for supporting the program and its modest expansion for FY 1996.

Introduction

I am currently Associate Professor of Mechanical Engineering at Rutgers University. I also serve as the Director of the Office of Industrial Productivity and Energy Assessment at Rutgers, which is a unit devoted to engineering extension services. I was born in Syracuse, New York and am a product of the US system of education. I have been at Rutgers since 1979.

The Federal Government has been funding industrial energy audits for small and medium sized manufacturing firms under the auspices of the EADC program since 1976. A component of the National Energy Strategy, the EADC program is a major energy conservation initiative of the U.S. Department of Energy (DOE). The audits (or "assessments") are performed by teams from engineering schools at universities which are made up of faculty and students. Normally the team performs a one day site visit at an industrial plant which follows an extensive pre-audit data gathering function. Following the site visit the audit team prepares a report for the manufacturer which has several assessment recommendations which are written up with sufficient engineering design to provide for anticipated savings, implementation costs and anticipated payback times. Historically, nearly 50% of these recommendations have been implemented by the company. This service is provided to the manufacturer at no cost.

The program has been highly successful since its inception. Beginning in 1976 with four schools, there are now 30 universities operating EADCs. In 1986, I established a center at Rutgers University and have supervised more than 150 "assessments" through 1992. Beginning with FY1992, Rutgers was selected as a field manager of the program and I now direct that effort which includes oversight of the activities at 15 universities and responsibility for the management of the database for the entire program. At its inception, the EADC program focused strictly on the minimization of energy consumption. Recently the program has expanded its focus to all aspects of the manufacturing process including waste minimization, pollution prevention and productivity enhancements. The "energy audit" has grown up to become more aptly named an "Industrial Assessment."

The program has attracted the "Best of the Best." The list of center schools includes top public and private engineering schools from every area of the nation. The work is hard and the limited resources means each school operates very lean. Each center serves manufacturers within 150 miles of their campus but several directors like Professor Chuang at the University of Dayton and Professor Turner at the University of Nevada - Reno and Greg Wheeler at Oregon State routinely travel farther to serve important nearby regions which are not served by other centers.

Clearly a major benefit of the EADC/IAC program is the support given to small and medium sized manufacturers. As a result of the assessments, those firms invest in new technologies, operate more efficiently, compete more effectively and through increased profits pay taxes which return the taxpayer's investment several times over. Such benefits have been tracked for many years and have been detailed in previous testimony. The program has been a benefit to more than the manufacturers served. The main purpose of my testimony before you is to describe some of the most important implicit benefits of the EADC program which are harder to quantify but define some of its unique benefits.

The Impact on Engineering Students

One subject which is difficult to quantify, but clearly important, is the effect the EADC/IAC program has on teaching in the engineering schools housing the centers and in general the impact on students.

Each center hires several undergraduate and/or graduate students to work on the industrial assessments. There are typically almost a dozen students on staff, all of whom are paid. The actual setup at the different universities vary. Professor Larry Ambs at the University of Massachusetts uses only graduate students for example while Dr. John Lucey, the Director at Notre Dame routinely hires more than twenty undergraduates to staff the center. In both cases more than 60% of the direct resources provided by the DOE are committed to student salaries.

These students benefit directly from exposure to the practical applications of technologies discussed in class. Students who have participated in only one assessment have commented later that even that one visit was an important part of their preparation for the "real world." But the impact on these students goes beyond simple exposure to practical applications. Students participate in every aspect of the program and gain first hand experience in project management and probably of greatest importance: technical report writing. There is also a large amount of close interaction between students and the faculty leaders. Especially at state universities, large class sizes and very busy faculty make the one-on-one interaction with students difficult. The EADC/IAC program provides a perfect platform for this valuable activity.

The benefits extend to all of the students in the department housing the EADC/IAC. The specific department varies depending on the university and include mechanical, industrial, chemical and electrical engineering. Activities in the center produce faculty with a wealth of practical knowledge concerning current problems in manufacturing. This, in turn, fills otherwise dull and formal lectures with a rich flavor that "war stories" from neighboring industry can provide. In addition, most centers have developed a curriculum for one or several courses concentrating on "re-engineering" in manufacturing. At Rutgers, my work with the EADC/IAC program has led to the development of a course on manufacturing systems which attracts a large fraction of our seniors. In this course, groups of students visit nearby manufacturers, perform assessments and write reports based on their studies. Several students have indicated that potential employers have requested copies of this report following interviews.

Employers struggle with the level of preparedness of students. A recent survey by the University of Pennsylvania revealed that most employers feel entry level students, while techically competent, are missing practical knowledge. The EADC/IAC program is currently providing practical training for many and an example for all. The job market in engineering has been soft the past few years, but students involved in my EADC at Rutgers have always had a good job waiting for them at graduation. This recognition of the importance of *some* practical training is getting the attention of students, faculty and administrators.

The EADC/IAC program also promotes interest in an important area. The field of manufacturing engineering is not as glitzy for the mechanical engineering student as say aircraft design or putting a man on the moon. Having centers at the best universities means exposure of the best engineering students to the unique challenges on the American factory floor. It is a powerful tonic and the majority of students who worked for me at the Rutgers center ended up making careers as plant engineers, working as energy consultants, or working with utilities and equipment manufacturers. I have gained tremendous satisfaction from this.

Implicit benefits of Industry/University Interactions

Centers provide direct connection between universities and their nearby small and medium sized manufacturers. Most centers are located at major state universities which have a clearly defined service role. Indeed any engineering school would admit that such connections are healthy, but mechanisms to generate it are not normally in place.

Interactions between engineering schools and local manufacturing are important for all of the parties involved. Historically, technological needs of the industrial sector were the primary source of ideas for the engineers at schools. Professors normally had significant industrial experience before joining the faculty which insured a close connection between practical and academic interests. Over time "intellectual in-breeding" has corrupted this relationship. Doctoral students in engineering have often taken teaching positions without working in industry. Academic interests are spawned entirely by their experiences in academe. Ideas originating with senior professors are studied and restudied by their students and their student's students. The peer review nature of proposal review at NSF and other funding agencies perpetuates this effect. Those proposing incremental advances based closely on previous work are more likely to receive positive reviews then those proposing something new. This trend needs to be changed and the EADC/IAC program creates direct links with local industry and engineering faculty. Its impact has been significant.

Relationships between businesses and faculty are also closely tied to the fundamental research issues associated with new technologies. A company developing a pump to move slurries recognizes that the engineering science necessary to model this flow is not available. Design of the pump will remain "in-house" but often funding will be provided to an engineering school for research into appropriate models. These companies are R&D operations, involved in developing new technologies for the marketplace. Companies involved primarily in production can also provide important interactions with universities. In this environment, the engineering resulting from academic study and R&D is put to the test. Professor Arvind Atreya, the center director at the University of Michigan, put it best saying about the manufacturing environment that "This is where I get my ideas." Several faculty have developed ideas for research from their studies of manufacturing processes. I currently have research projects underway on two-speed destratification fans, oscillating fluidized beds and computer controlled volumetric measurement which have resulted directly from my interactions with industry.

This interaction is vital to the economic future of our country and the intellectual stimulation of the faculty.

Impact of Non Biased Information

It does not take long when talking with manufacturers to realize that the energy efficiency business has not done a good job in policing itself. Some new technologies are marketed with inflated claims if any benefits at all are to be realized. Plant managers have become wary. The faculty at the EADC/IACs are prohibited from private consulting with the firms served. They have no financial relationship with equipment vendors and have a large investment in their personal reputations. This results in a non biased evaluation of technologies and the appropriateness of application in a variety of industrial settings by faculty with impeccable credentials.

And the results of these studies are of use to more than the client firm served. A significant benefit of the program is that since 1980 the data from individual assessments have been compiled in an Industrial Assessment Database which is currently available to anyone via computer network through my office at Rutgers University. The data generated by the assessments provides a unique opportunity to quantify the state of energy management in small and medium sized industry and the potential of auditing to improve efficiency. The database has been available for download over the internet since January of 1993. Recently the database has been installed on a node of the World Wide Web allowing access through Mosaic which promises even more exposure for the data. Since establishment in August of last year, 561 different entities have accessed the Web site at Rutgers and the Industrial Assessment Database. These include private sector companies, government and military entities, consulting firms, utilities, private citizens and universities. Nineteen foreign countries and two international agencies (the International Energy Agency and the World Bank) are also on the list of users.

In conclusion, any careful examination of the EADC/IAC program will demonstrate that it is a valuable use of taxpayer dollars. As a means of technical support to small and medium sized manufacturers. As an important ingredient to the mix of interests being pursued at our best engineering schools. As a means of bringing student's attention to the exciting challenges facing manufacturing today. And as a means of generating a unique, non biased data set on industrial activities available to all on the information superhighway. The modest expansion proposed in the budget would hopefully allow centers to be established in industrial areas which currently have little or no EADC presenc e (such as Seattle, Miami, and the Dallas/Fort Worth area) and to bring more HBCUs into the program. I strongly encourage this committee to support this program.

Mr. REGULA. DOE gives you some money for this?

Mr. MULLER. Yes, it is a DOE program.

Mr. REGULA. Hundred percent?

Mr. MULLER. No, not hundred percent, but close.

Mr. REGULA. Okay. Thank you very much.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: RELATED PROGRAMS

WITNESS

KENT JEFFREYS, SENIOR FELLOW, NCPA

Mr. REGULA. NCPA, Mr. Jeffreys. Your full statement will be put in the record. Summarize, please.

Mr. JEFFREYS. Thank you, Mr. Chairman. I recall a few years ago working on the superconducting super collider with members of your staff, so it was a pleasure then and I think that gave us an indication that the Department of Energy is neither infallible, nor completely necessary in every case. And having witnessed the discussions earlier, some of the earlier testimony, I am going to stray from my prepared remarks and just discuss some of the other aspects.

Most of the discussion it seems is revolving around applied development of products, rather than the basic research and some of the sort of breakthrough technologies that a lot of people think of as being associated with the national labs and the research facilities of the Department of Energy.

Recently I was working with some of the freshman class of the House on, I guess, a reform project targeting particularly the Department of Energy, and making proposals and suggestions about how to go about properly restructuring the Department of Energy. And I think one of the things we are seeing today is that the old attitudes die in a very difficult fashion.

The Federal Government is now running out of money. Everyone admits we have to balance the budget. And the Department of Energy, even the Clinton administration, has admitted that they can find billions of dollars in savings over the next few years. This is coming from a Democratic administration. So you can imagine there must be some real savings to be found if we look hard enough.

This committee does not have jurisdiction over particular areas that are probably the more core or necessary fundings of the Department of Energy, some of the defense-related activities. But from my perspective, as someone who has worked on the energy and environmental issues for about a decade here in Washington, I would say that in the early years, the Department of Energy spent about half of its budget building bombs and the other half making energy more expensive for the American consumer and today it spends about half of its budget cleaning up the mess it made building the bombs and the other half subsidizing some of the biggest corporations and universities around the country.

Now, on the applied side, which is again where we start to get into some real difficulties, there has never been a satisfactory mechanism for returning the taxpayers' money. If the taxpayer is going to contribute and subsidize the development of commercial products, a strong question can be raised as to whether or not the patents and the related income from these developed products should be returned, paid back into some sort of fund.

The discussions with the freshmen group indicated that there was a great deal of controversy swirling around that, but it is something that should be at least considered by the committee when it looks into paying for commercial products.

I would just say that in conclusion, I have got written testimony which goes into some specifics. Many of the energy-related activities of the Department of Energy are in historical terms and anachronistic. They are intended to solve problems that don't really exist anymore.

International energy markets are now far more robust than they were 20 or 30 years ago, and I hope that the Congress will take a very careful look and reconsider some of the activities from the Strategic Petroleum Reserve, to the Naval Petroleum Reserves, to some of the things that go beyond the purview of this committee, but including the Power Marketing Administrations and other energy-generating and production-type activities at the Department of Energy.

So I guess the bottom line is, the best thing this Congress could do is to pry the nameplate off Hazel O'Leary's door and dismantle the Department of Energy and return many of its original functions back to where they came from and then eliminate many of the subsidies that are inherent in the DOE activities.

Mr. REGULA. Mr. Bevill.

Mr. BEVILL. I have no questions.

Mr. REGULA. Thank you very much. I think fiscal conditions will cause us to scrutinize the programs very carefully.

Mr. JEFFREYS. Thank you.

[The information follows:]

Testimony of Kent Jeffreys, Senior Fellow
National Center for Policy Analysis
Before the
House Committee on Appropriations,
Subcommittee on Interior and Related Agencies

The Honorable Ralph Regula, Chairman
March 24, 1995

My name is Kent Jeffreys and I am a senior Fellow with the National Center for Policy Analysis (NCPA), a non-partisan public policy research and analysis organization based in Dallas, Texas. I specialize in energy and environmental policies and work out of the NCPA's Washington, DC office.

Thank you for this opportunity to address the subcommittee and present my findings on the current status of, and justification for, several specific Department of Energy programs.

In broad summary of my findings, the Department of Energy, barely thirty years old, is an historical anachronism: an agency without a justifiable mission. Today's U.S. energy needs can be fully met by the private sector in an efficient and diversified manner. The nuclear weapons functions of the Cold War are significantly lessened and largely replaced by maintenance and cleanup, activities for which DOE is poorly designed. These functions should be transferred to a more appropriate federal entity.

In addition, earlier fears of an "energy crisis" proved to be exaggerated and, in fact, the world market for energy is far more robust today than twenty or thirty years ago. Another purported justification for keeping the DOE is energy-related research and development. Yet in the past, the DOE has served as a source of funding for several unneeded and failed projects, such as the Synthetic Fuels Corporation and the Superconducting Super Collider. The American public is no longer willing to support such grand and expensive projects, particularly when the benefits are captured by special interests. Any further scientific or research activities within the federal government could be better handled by other agencies, such as the National Science Foundation. And finally, the Department of Energy has been largely, if not completely, irrelevant to US energy security, even during a war in the Persian Gulf.

Indeed, even the Clinton Administration has admitted that many of the existing functions of the DOE could be better handled by other federal entities. In a recent General Accounting Office (GAO) report[1] on the DOE, it was concluded that most the the DOE's functions could be eliminated or transferred to other agencies.

However, as with so many federal programs and policies, actually eliminating specific projects may create short-run costs which appear greater than current expenditures. This should not serve to block these important reforms, because the long-run benefits to society more than outweigh these temporary costs. Chief among these benefits are enhanced economic efficiency; reduced governmental demands on the private sector economy; streamlined federal responsibilities in research and development; and a more appropriate federal role in what are largely private sector activities.

Energy markets are no different from most other markets: they operate best when managed by the private sector. In fact, many of the energy-related activities of the federal government act to subsidize energy consumption (the Power Marketing Administrations, for example) or are intended to impede market responses to changing circumstances (the Strategic Petroleum Reserve). The time has come to do more than simply reexamine the efficiencies (or lack thereof) of the Department of Energy. The Department of Energy should be completely dismantled.

I will now briefly summarize many of the specific reasons for eliminating or transferring several of the Department of Energy functions which fall within the purview of this subcommittee.

Strategic Petroleum Reserve.

Once considered vital to this nation's ability to withstand a temporary cutoff of imported crude oil, the Strategic Petroleum Reserve is looking more and more like a liability rather than an asset. More than $21 billion has been spent on the SPR, equating to a cost of more than $35 per barrel. The current world price is approximately half that amount.

The justifications for this stockpile have diminished significantly. Indeed, Congress has seen fit to all but stop the filling of the SPR at less than 600 million barrels of crude (out of an original, arbitrary goal of 1 billion). In addition, the SPR is developing potentially dangerous gas buildups. Are we creating another massive cleanup liability?

Finally, the strategic value of the reserve is questionable. During the recent Persian Gulf hostilities, when both Iraqi and Kuwaiti oil exports were completely stopped, the SPR was completely unnecessary: price signals performed all of the desired functions of the SPR by inducing conservation among consumers. The Strategic Petroleum Reserve should be privatized.

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[1] Victor S. Rezendes, "Department of Energy: Research and Agency Missions Need Reevaluating," testimony before the Subcommittee on Energy and Environment, Committee on Science, US House of Representatives, February 13, 1995.

Naval Petroleum Reserves.

Unlike the Strategic Petroleum Reserve, the Naval Petroleum Reserves are actually operating oil fields. Thus, with the SPR, the federal government purchases crude oil and pumps it into the ground -- elsewhere, the federal government operates an oil field to pump oil out of the ground.

The Naval Petroleum Reserves were established early in this century to ensure a ready supply of domestic crude for naval war vessels. This justification is completely without merit today, so the NPRs are maintained as a money-making business enterprise of the federal government. This should be stopped.

A recent government study[2] reiterated what has been known for years: Federal management of these working oil fields leads to inefficiencies that reduce overall societal benefits. The Naval Petroleum Reserves should be sold to private sector operators.

Oil Shale Reserves.

The Oil Shale Reserves consist of huge deposits of hard rocks which contain oil. Through a relatively expensive process, the oil can be "cooked" out of the rocky shales. Yet the shale must be strip mined and the resulting oil is much more expensive than normal crude.

These large mineral deposits should be sold to private enterprises or returned to the governments of the states in which the deposits are located. There is very little current value derived from these holdings, and removing them from the federal estate would send a signal that the federal government is serious about getting its house in order.

Energy Research and Development.

Over $90 billion has been committed to energy research and development within the past four decades. $50 billion has been spent on nuclear energy, $19 billion for coal, $10 billion for solar, $5 billion for oil, $3 billion for natural gas, $2 billion for geothermal, and $1 billion for hydropower. It is fair to question whether the American taxpayer has received his or her money's worth.

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[2] "Naval Petroleum Reserve: Opportunities Exist to Enhance its Profitability," General Accounting Office, January 1995.

This expensive effort has been little more than a subsidy to industries that should bear the costs of their own research and development. This is particularly true in regard to "applied" research, which is often little more than a subsidy to private product development. Most federal energy research and development projects should be ended and any that are retained should be transferred to the National Science Foundation, or a similar entity.

Clean Coal Technology Initiative.

Much of the impetus behind this program was a political desire to prove that the federal government was "serious" about fighting air pollution, especially "acid rain."

The private sector has contributed several billion dollars toward Clean Coal research. The $2.5 billion already spent by the federal taxpayer under the Clean Coal project has served as a direct subsidy to the coal industry; high-sulphur coal producers in particular. The federal involvement in such projects should be ended.

Energy Information Administration.

Many observers have suggested maintaining the Energy Information Administration within a smaller Department of Energy. Yet this is undesirable and entirely unnecessary. Indeed, for those who need accurate and timely energy data for investment purposes, the EIA is essentially worthless.

If the information gathered and disseminated by the EIA is truly of value, it should be possible to privatize this function and convert it into a profitable enterprise.

CONCLUSION

In her recent testimony (March 14, 1995) before this very subcommittee, Energy Secretary Hazel O'Leary detailed the adminstration's proposals to reduce the DOE budget by as much as $14 billion over the next five years. She is to be commended for her efforts in this regard, but it is not enough.

The Department of Energy is no longer needed. Any vital functions which Congress feels compelled to maintain within the federal government can be shifted to more appropriate agencies. The Department of Energy was created by drawing together various energy-related functions from other federal departments. The times have changed and the original mission of the Department of Energy is no longer appropriate or needed.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY EFFICIENCY

WITNESS

HOWARD GELLER, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY

Mr. REGULA. American Council for an Energy-Efficient Economy.

Mr. GELLER. Good afternoon, Mr. Chairman, thank you for the opportunity to appear today.

ACEEE strongly endorses funding for applied R&D on highly innovative energy-efficient technologies. Working with the private sector, DOE has proven that it can help turn engineering concepts into viable energy-efficiency technologies. The advanced energy-efficiency measures under development by DOE today will help U.S. consumers save money, help industries compete in global markets, and cost effectively reduce pollution emissions in the coming decades.

Promising technology partnerships that we support in the fiscal year 1996 budget request include working with the Big Three auto makers on the partnership for a new generation of vehicles, collaborating with lighting companies on products such as the sulfur lamp that could be twice as efficient and provide better light quality than conventional lamps, working with the window industry in creating smart windows with variable light transmission capability, cooperating with the iron and steel industry on highly innovative direct steel making and joining with the paper and pulp industry on a paper mill of the future projects.

DOE's most successful energy-efficiency efforts, such as former projects on low massivity windows and electric ballasts include a combination of R&D, demonstration and field testing, product refinement, objective product ratings and other information efforts and cost-effective efficiency standards.

For examples of these comprehensive efforts, there is a very nice new report out from Lawrence Berkeley Laboratory called "From the Lab to the Marketplace" which I would like to provide to the subcommittee.

Mr. REGULA. Thank you.

Mr. GELLER. In our view, there is an important role for the government in acting as a market catalyst, addressing barriers that inhibit the adoption of cost-effective energy-efficiency measures in the marketplace, as well as in working on this applied R&D on these leapfrogging technologies.

Mr. REGULA. You think we should go beyond development or should the marketplace pick up once the technology is proven?

Mr. GELLER. I believe that very targeted efforts to help technologies that are just coming into the marketplace become adapted and develop a footing in the market is warranted. Educating consumers, providing product ratings, programs such as this EADC program we just heard about that is providing information and audits to small industries that don't have energy managers typically, I think those kinds of focused projects directed at real barriers to adoption of cost-effective energy-efficiency measures, I think that is warranted and there is a role for DOE there.

Of particular significance in our view in this area of helping to promote adoption of energy-efficiency measures are DOE's appliance standards and building standards programs. These two programs are yielding tens of billions of dollars of energy savings for consumers. The programs in the legislation that established them had bipartisan support, as well as private sector backing when they were first adopted. The total budget request for fiscal year 1996 is about $25 million.

Mr. REGULA. In the President's budget?

Mr. GELLER. The same as what was approved by Congress in 1995 in these areas and we would urge that they be given the highest priority. We realize that some cuts are going to be made in the overall request, given the pressure on the discretionary budget, but these two programs in our view should be the first ones that are protected.

Just in conclusion, we believe that DOE's energy-efficiency programs are providing benefits that far exceed their costs. Working in partnership with the private sector, DOE is making a difference through co-funding R&D on innovative energy-efficiency technologies, as well as supporting critical market catalyzing activities.

Again, we realize that the Federal budget is under intense pressure and that there will be cuts made, but I do urge the subcommittee to try to maintain these programs as close to fiscal year 1995 levels as possible.

Mr. REGULA. Very well. Thank you very much.

[The information follows:]

American Council for an Energy-Efficient Economy
WASHINGTON, DC / BERKELEY, CA

TESTIMONY OF

HOWARD GELLER, EXECUTIVE DIRECTOR

THE AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY

BEFORE THE

SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

COMMITTEE ON APPROPRIATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

ON THE DEPARTMENT OF ENERGY'S ENERGY EFFICIENCY PROGRAMS

MARCH 24, 1995

1001 Connecticut Avenue N.W. • Suite 801 • Washington, D.C. 20036 • (202) 429-8873 / FAX (202) 429-2248

The American Council for an Energy-Efficient Economy is a non-profit organization dedicated to advancing technologies, programs, and policies that improve energy efficiency. We appreciate the opportunity to appear before the Subcommittee.

DOE's energy efficiency programs advance innovative, cost-effective technologies, create jobs, and help U.S. companies compete in the global marketplace. DOE is working in partnership with hundreds of private companies and universities to develop and demonstrate a wide range of new energy efficiency measures. Examples of successful technologies developed through these partnerships include:

> **Low-emissivity window coatings**, which reduce heat loss through windows by about one-third and are now used in about 40% of new windows installed in housing.
>
> **Electronic ballasts**, which significantly cut electricity use in fluorescent lighting and are quickly becoming the norm in this market.
>
> **Gas absorption heat pumps**, which consume about one-half as much fuel for space heating compared to typical new gas furnaces, without using environmentally damaging CFCs or HCFCs.

These and other successful technologies that DOE helped to develop are saving consumers billions of dollars every year.

In its FY96 budget request, DOE is proposing to continue partnerships with the private sector on a wide range of advanced technologies, processes, and concepts. These partnerships include:

o working with the "Big Three" automakers on developing a car that would be three times as energy efficient as typical cars made today without sacrificing size, comfort, safety, or performance;

o collaborating with a small lighting company to develop the electrodeless sulphur lamp that would be twice as efficient, longer lasting, and provide better light quality than conventional lamps;

o assisting the window industry in creating "smart" electrochromic windows with variable light transmission capability;

o cooperating with the iron and steel industry on highly innovative "direct steelmaking" that would be less energy intensive, less costly, less polluting, and have greater capacity than conventional steel mills;

o joining with the paper and pulp industry on a "paper mill of the future" that would save energy, reduce waste, cut pollutant emissions, and improve product quality; and o working with other energy-intensive industries such as the chemicals and petroleum refining industries on "industries of the future" programs.

ACEEE strongly endorses funding for applied R&D on these and other highly innovative technologies. Working with the private sector, DOE has proven that it can help turn engineering concepts into viable energy efficiency technologies. The advanced energy efficiency measures under development by DOE today will help U.S. consumers save money, help industries compete in global markets, and cost effectively reduce pollution emissions in the coming decades.

Given the substantial benefits that are possible with energy efficiency measures, it is fair to ask: "Won't private companies develop innovative energy efficiency measures on their own? Why does the federal government need to co-fund R&D?" Unfortunately, private companies are not likely to make these longer-term R&D investments on their own, for a number of reasons.

o Competitive pressures are forcing companies to cut costs, leading to a focus on near-term incremental improvements rather than major longer-term breakthroughs;

o R&D involves high up-front costs, long lead times, and the risk of failure;

o The competitive advantage from a technological advance is uncertain since new developments are rapidly copied in today's information-rich global economy; and

o Key industries such as the buildings industry are extremely fragmented and lack the technical or financial resources to undertake substantial R&D on their own.

With the downsizing, merging, and cost cutting that occurred in the private sector in recent years, R&D budgets have been slashed. Today, companies are more interested in cooperating with the government on R&D as well as getting assistance from the national labs, participating in CRADAs, and entering into other partnerships. Over 260 businesses recently wrote to Chairman Livingston expressing their support for DOE's energy efficiency and renewable energy programs. These are but a small fraction of the companies that are directly and indirectly helped by DOE's programs.

The federal government still has an essential role to play in promoting energy efficiency in spite of today's low energy costs and the progress made in improving energy efficiency during the past 20 years. Huge potential exists for further cost-effective energy efficiency improvements in all sectors of the economy. EPRI, for example, estimates that electricity use nationwide can be reduce by 30% through implementation of efficiency measures that would have an average cost of only $0.02 per kilowatt-hour saved.

Spending federal dollars on energy efficiency R&D and promotion is a good investment for the government. Federal expenditures are paid back when companies cut their energy bills and sell energy efficiency measures, thereby increasing their income, profits, and income tax payments. For example, the 50 million electronic ballasts sold through 1993 generated additional gross revenues of about $500 million for ballast manufacturers, implying additional profits of approximately $40-50 million and additional income tax collection of about $15 million by the federal government. Federal expenditures are also paid back as the government reduces its own energy bills. And federal dollars are saved as more workers are employed in a more energy-efficient and productive economy.

DOE's most successful energy efficiency efforts, such as the examples of low-emissivity windows and electronic ballasts, include a combination of R&D, demonstration and field testing, product refinement, objective product ratings and other information, consumer education, and cost-effective minimum efficiency standards. For examples of comprehensive efforts funded by DOE that have had a big impact, I refer the Subcommittee to a new report by Lawrence Berkeley Laboratory titled **From the Lab to the Marketplace: Making America's Buildings More Energy Efficient**, which I would like to submit for the hearing record.

In my view, there is an important role for the federal government in acting as a "market catalyst" -- addressing barriers that inhibit the adoption of cost-effective energy efficiency measures in the marketplace -- as well as in co-funding R&D on highly innovative energy efficiency technologies. This means complementing the efforts of the private sector, but not doing the product marketing that is the responsibility of individual companies. DOE's FY96 budget request includes many important "market catalyzing" activities, including the EADC, Motor Challenge, and Climate Wise programs that inform and provide technical assistance to industries, and the market pull, Cool Communities, and training programs that are helping to establish markets for new energy efficiency technologies in buildings and ensure that buildings are constructed and operated properly.

Of particular significance are DOE's appliance standards and building standards programs. These two programs are yielding tens of billions of dollars of savings for consumers at very little cost to taxpayers. The programs and the legislation that established them are highly cost effective and are supported by the private sector. I urge the Subcommittee to recommend funding at the requested levels for the appliance and building standards programs ($24.6 million combined), even if cuts in the overall energy efficiency budget request need to be made. Also in the deployment area, we are very supportive of DOE's Federal Energy Management and Weatherization Assistance Programs. These programs result in energy savings in critical markets that tend not to make energy improvements without DOE support.

Compared to our international competitors, the U.S. government is not spending an excessive amount of money on energy programs. Data from the International Energy Agency show that among the largest industrialized nations, the United States is 6th out of ten nations in terms of federal energy R&D funding per unit of economic output. As of 1993, Japan spent three times as much as the U.S. on energy R&D per unit of economic output; France, Canada, Switzerland, and the Netherlands also spent more than the United States. Our major trade competitors recognize that it is appropriate for the government to co-fund development of advanced energy technologies. I urge the Subcommittee not to put our companies at a disadvantage globally by withdrawing federal support for the development and commercialization of new energy-efficient technologies.

In summary, DOE's energy efficiency programs are providing benefits that far exceed their cost. Working in partnership with the private sector, DOE is making a difference through co-funding R&D on innovative energy-efficient technologies as well as supporting critical "market catalyzing" activities. Continued funding for federal energy efficiency programs will save consumers money, create jobs, and reduce pollution in a highly cost-effective manner. I realize that the federal budget for discretionary programs is under intense pressure and that many federal programs will receive cuts next year. However, I urge the Subcommittee to maintain DOE's energy efficiency programs as close to FY95 funding levels as possible.

Thank you again for the opportunity to present these views. I would be happy to respond to any questions you might have.

FRIDAY, MARCH 24, 1995.

DEPARTMENT OF ENERGY: ADVANCED TURBINE SYSTEMS PROGRAM

WITNESSES

JIMMY L. LUNSFORD, VICE PRESIDENT, INDUSTRIAL PRODUCT LINE, ALLISON ENGINE COMPANY

DR. SY ALI, DIRECTOR, INDUSTRIAL ENGINE TECHNOLOGY

Mr. REGULA. The Allison Engine Company, represented by Dr. Wallace, the CEO. I understand you are not Dr. Wallace.

Mr. LUNSFORD. No, sir, he is not in today.

Mr. REGULA. What does Allison Engine produce?

Mr. LUNSFORD. My name is Jim Lunsford. I am vice president of engines for Allison Engine Company. I am appearing here to present Dr. Wallace's testimony.

Mr. REGULA. You will have to summarize it, as you can understand.

Mr. LUNSFORD. I will do that, yes. We have submitted written testimony. We are located in Indianapolis, Indiana. We are a major supplier of gas turbine engines that are used in military transports and also—like the C–130 aircraft as an example.

We are also a major player in the industrial gas turbine business. We provide engines for cogeneration, pipeline applications, pumpers, also engines that are used in marine propulsion.

Mr. REGULA. So you are the Allison Engine Company.

Mr. LUNSFORD. Yes, sir.

Mr. REGULA. All right, I know what it is and go ahead.

Mr. LUNSFORD. I am here today to support the Department of Energy's ATS program, which means Advanced Turbines Systems program. We strongly urge this committee to continue the funding of the ATS program as outlined in the July 1993 request that was in the report to Congress. There were comprehensive plans submitted at that time.

This has been an ongoing program. We are ready to enter into phase 3. We are actually taking advanced technology and building a gas turbine system to advance the efficiency in areas of now typically 30 percent, 32 percent up to 43 to 45 percent.

Mr. REGULA. So the justification for public money would be because of the efficiencies that could be gained by the technology that you would develop on a matching fund basis?

Mr. LUNSFORD. Yes. It is a matching program. Allison matches 42 percent of the funds the Department of Energy puts in.

The important point I want to make is that there are many people that benefit from this program other than the hardware manufacturer. In fact, when we look at the benefits to be gained, one of the key objectives of the program is a 10 percent reduction in the cost of energy.

Also, because of the increased efficiency, there is a tremendous gain in the benefit to reduce the amount of natural gas and petroleum that is used in the future.

Mr. REGULA. So energy savings would result from this investment?

Mr. LUNSFORD. Yes.

The other thing that happens, one of our goals is to reduce the cost of energy by 10 percent. So this savings then is available to the American public and is a tremendous energy decrease, and I have some numbers just to——

Mr. REGULA. How do you decrease the cost of energy?

Mr. LUNSFORD. What happens is because we have increased efficiency of the system, what we actually do is reduce the fuel required to produce a given kilowatt of electricity. That is one way.

The second way is that these more efficient systems allow you actually to have fewer systems generating an equivalent amount of electricity. So you benefit not only reduced fuel consumption but also equipment——

Mr. REGULA. Equipment drives turbines.

Mr. LUNSFORD. Our turbine engines drive generators that then produce electricity.

The other thing that, as you know, has happened in this country is there is a tremendous move towards distributive power. What we see in this country is a tremendous need for smaller power generation, under 10 megawatts. That is the size the industrial engines are headed for, and what we see is these offer an opportunity to be distributed throughout the load in a utility grid. Not only that, what we are looking at is tremendous reductions in emissions of knocks and also CO, CO_2.

We have goals for reliability and availability that exceed what is available today, and I will just give you an example. Our typical cogeneration systems now have over 99 percent availability. What that means is they run and they run and they run, so the reliability is there.

What we are essentially doing is taking technology from—some of it was funded along with us and the Defense Department and we are actually stretching beyond some of the levels of technology we have in our most advanced gas turbine engines that are used in the aircraft gas turbine industry today. It is a partnership with Gas Research Institute, with EPRI, with DOE.

There is a steering committee that has been put together that involves the Department of Energy, the Environmental Protection Agency, EPRI, Gas Research Institute, and we also have members from NASA and the Department of Defense on our advisory team.

The main thing that we want to do is to make sure that we actually leapfrog this technology into the existing engines.

Mr. REGULA. One minute.

Mr. LUNSFORD. Sure. And by having a joint partnership, we are able to not only bring benefits to people other than the gas turbine manufacturer, but the entire industry.

Since gas turbines appear to be the choice to generate at least 50 percent of the added capacity that is going to come on in the next 10 years, we want to get the technology in as quickly as we can to get these savings made immediately. That is our main thrust in seeing this thing pushed forward and driven hard.

On the industrial ATS program, we have $15.7 million requested. That has now been cut to 11.3. We urge you to support it. We urge you to go back to the original funding. We have talking about timing to get this product to market as quickly as we can, and again, it is the whole partnership that is involved and it is the whole country that really benefits from this.

Mr. REGULA. Is this the same company that was building engines for fighter aircraft in World War II?

Mr. LUNSFORD. Absolutely. We built 42,000 in one year.

Mr. REGULA. You had the P–51.

Mr. LUNSFORD. Yes, sir. Yes, sir. We are also—I want to support the Wilsonville project because they have our engine there as well. So I will put that in. We have a very good company.

Mr. REGULA. Your engine is in the P–38?

Mr. LUNSFORD. Yes.

Mr. REGULA. Forty-two thousand.

Mr. LUNSFORD. Right, in one year. Built a plant in six months and went into production and tremendous volume.

Mr. REGULA. A great success story. Glad you are still around.

Mr. LUNSFORD. Thank you very much for the opportunity to appear.

Mr. REGULA. Thank you.

[The information follows:]

Dr. F. Blake Wallace
Chairman and Chief Executive Officer
Allison Engine Company

INTRODUCTION: Mr. Chairman, members of the House Appropriations Subcommittee on Interior and Related Agencies, my name is Blake Wallace. I am Chairman and Chief Executive Officer of Allison Engine Company (Allison) in Indianapolis, Indiana. I am appearing before this Committee in support of the funding request by the U.S. Department of Energy for the Advanced Turbine Systems (ATS) program.

I strongly urge this Committee to continue to fund the ATS program, as outlined in the July 1993 "Report to Congress: Comprehensive Plan for Advanced Turbine Systems". The ATS program will enable the U.S. to meet electric needs with high efficiency, clean, and low cost systems. The average electric expenditures per capita in the U.S. are $750 per year. The national expenditures are $190 billion per year.

The government should sponsor and guide the ATS program because of the broader societal benefits. The ATS program would benefit:

- The U.S. tax payers through reduced electric costs and cleaner environment;

- The U.S. economy through jobs, export, increased use of gas, and reduced import of oil;

- The U.S. electric industry by offering efficient, cost effective, and fuel flexible power generation and cogeneration system alternatives.

Allison is in the gas turbine engines business for industrial power generation and cogeneration, as well as for military and commercial aviation. At Allison we design, develop, manufacture, market and provide after sales support of gas turbines.

THE ADVANCED TURBINE SYSTEMS PROGRAM: The ATS program, representing government/industry partnership was started in 1992. The program is planned for completion over an 8 year period. The total government funding requirements are for $420 million, with the industry contributing an additional $236 million. The industrial ATS program will require $100 million of government funds and $69 million of industry funds.

The primary objectives of the ATS are:

1. System efficiency at least 15% higher than the best of the current state-of-the-art industrial turbines; and greater than 60% for utility turbines.

2. An environmentally superior system that can lower NO_x emissions to 8 ppm, and CO and UHC to 20 ppm, without the use of post combustion controls.

3. Busbar energy costs at least 10% lower than those of the 1992 vintage machines, while meeting the stringent environmental goals.

4. Reliability, availability, and maintainability equivalent to 1992 vintage turbines.

5. Fuel flexible design to operate on natural gas as well as being adaptable to operate on coal gas, biomass fuels, or other alternative fuels.

The program is structured to move the U.S. turbine technology ahead through a revolutionary advancement. ATS will help the industry to "leap frog" the technology. Technology improvements brought about by the industry are historically incremental, because substantial resources are needed to achieve revolutionary advancement. The ATS program will enable the industry in partnership with the government to achieve the revolutionary improvements necessary to stay ahead in the global gas turbine market.

The ATS program will accelerate the introduction of vastly improved power generation and cogeneration systems with significant benefits. The major benefits are:

1. Improved performance which would save the equivalent of $80 billion investment in additional electric capacity in the U.S. (160,000 megawatts [MW] of energy) by the year 2020. Over half of the new generating capacity being added is represented by gas turbines.

2. Lower cost of electricity will result in major savings on the electric bills to households. Small savings can have a major ripple effect on the national economy.

3. Environmental enhancement will reduce generation of oxides of nitrogen and the greenhouse gas, carbon dioxide. For industrial turbines, achieving this goal will eliminate the major economic penalty imposed by the use of post-combustion control devices.

The Steering Committee of the ATS program is chaired by DOE. Other members of this committee who have also endorsed this program are the U.S. Environmental Protection Agency, the Electric Power Research Institute, and the Gas Research Institute. The Department of Defense's Advanced Research Projects Agency and the National Aeronautics and Space Agency are the advisory members of the Steering Committee.

An important and unique feature of the ATS program is the participation by national laboratories and universities. The national laboratories, through joint programs with industry, participate through the Cooperative Research and Development Agreements. Advanced materials work and generic combustion analyses are conducted at national laboratories.

Advanced ATS research is funded at the universities. The gas turbine industry selects the topics for advanced research projects, and provides guidance in the selection and execution of these projects. The industry also participates by conducting experimental validation of work done by universities. This unusual mechanism also promotes a proper training forum for graduate students and potential employees. Over 70 universities from all over the U.S. are participants in this consortium.

THE U.S. GAS TURBINE INDUSTRY AND FOREIGN COMPETITION: Currently, the U.S. gas turbine industry is the world's technology leader. The industry provides high skilled jobs and contributes positively to the U.S. balance of trade through a sizable export of its products and services all over the world.

The major driver for the U.S. gas turbine industry's global leadership has been the U.S. Department of Defense (DoD). Over the years, DoD provided the financial stimulus through sophisticated military programs. These technology enhancement and development programs resulted in industry's "leap frog" progress over foreign competition.

Recent drastic reductions in the DoD spending and other factors have caused a major reduction in the size of the U.S. gas turbine industry and its rate of investment in technology to retain its world leading position.

The U.S. gas turbine industry of necessity concentrates its resources on near and mid term (<5 years) projects due to the competitive pressures of the market place. As a result, the industry is unable to invest 100% of the resource requirements in long term "leap frog" technologies which will protect U.S. jobs and exports as well as reduce consumer costs and improve the environment. The ATS program will focus on these longer term investments. Through the ATS government/industry partnership, the industry's investment, none-the-less approaches 70% of the government share.

Foreign governments have accelerated their support of the gas turbine industry. Japan and Germany, recently increased financial support of their manufacturers through increased funding for development and technology enhancement. These government subsidies to foreign turbine manufacturers range from 3 to 7 percent of their sales. In contrast, the U.S. investment in research and development is less than 2%, the lowest among the industrialized countries. Without the government/industry partnership and cost-sharing of the ATS program, the Japanese, the French and the German gas turbine companies would take the lead from us.

The visionary approach taken by the U.S. Department of Energy with the ATS government/industry partnership should help maintain and promote the technological leadership of the U.S. gas turbine industry.

BENEFITS OF THE ATS PROGRAM: The latest projections show that nearly 60,000 MW of new power will be added in the U.S. over the next 10 years. The world wide power generation market is substantially larger than this. It is estimated that 550,000 MW of additional electric power capacity over the next 10 years will be required globally. In terms of dollars, this represents a potential world wide market of over $500 billion.

The U.S. gas turbine industry employed approximately 160,000 people in 1992. The suppliers and parts manufacturers bring this total up to 600,000. Global sales of U.S. gas turbine engines for power generation and aviation were approximately $16 billion in 1992. Sales for power generation represented about 25%. In the power generation market, over 80% of the U.S. manufactured gas turbines were sold abroad. Thus the gas turbine industry contributed to a net export of over $2 billion.

The short plant construction cycle of gas turbine power plants offers ATS power generation system a distinct advantage over other options. It is also expected that both in this country and other parts of the world, such as China and India, smaller industrial gas turbines will be used as base loaded units.

The innovative concept of distributed generation promotes the application of industrial gas turbines which can be added as incremental units, instead of large traditional utility power plants. Distributed generation and cogeneration obviate or at least minimize the need for constructing new transmission lines. Small power plant modules can be placed directly at the customer's site. Alternatively these modules can be placed at a substation of an electric utility. Power is fed directly into the substation which handles the distribution needs of the community. This technology thus facilitates policy initiatives to deregulate electric supply.

SUMMARY:

The most significant benefits to the U.S. tax payers from the ATS program are:

1. The ultra-high efficiency power generation systems would help reduce the per capita electric bills. The annual expenditures for electricity are $190 billion.
2. The potential to avoid the addition of 160,000 MW of new installed capacity in the U.S. by the year 2020.
3. Significant improvement in environmental quality through major reductions in emissions of pollutants.
4. Protection of the 160,000 U.S. primary jobs in the gas turbine industry, with a potential to increase this substantially over the next 10 years through technological leadership in the world wide market.
5. Over 600,000 jobs, through the ripple effect, will be preserved and potentially expanded in many states where turbine parts and components are made by suppliers and sub-contractors.
6. Preserve and expand the over $2 billion annual export market for U.S. gas turbine products.
7. Provide an efficient, cost effective, and environmentally sound power generation alternative through distributed and centralized power generation, and cogeneration for the U.S. electric industry and world wide, to achieve sustainable development.
8. The Yergin Task Force, chaired by Pulitzer Prize winning author Dr. Daniel Yergin, is holding public meetings on DOE's applied research programs. Their effort is to bring the DOE priorities more in line with those of industry. Preliminary indications based on the hearings to date are that the Task Force would be supportive of the ATS program.
9. Continue to provide utilization of coal, our nation's abundant resource of energy, as a clean alternative for power generation. Over 53% of the U.S. electric power is currently generated from coal. The fuel adaptability feature of ATS will allow for the use of coal and biomass fuels.
10. Support for the applied research at U.S. universities on advanced gas turbines. Provide proper training opportunities for future U.S. workers.
11. Serve the societal and energy needs of the U.S. and the world at large through the U.S. leadership in quality.
12. The government's investment through the ATS government/industry partnership and cost-sharing, has the potential to pay off to U.S. tax payers several times the value of the investment.

FRIDAY, MARCH 24, 1995.

NATIONAL GALLERY OF ART

WITNESS

MURRAY WHITE

Mr. REGULA. Murray White, give us a summarization.

Mr. WHITE. Thank you very much for letting me come and testify about the National Gallery of Art.

I first came before this subcommittee last year to talk about the—in my opinion, the fact that this painting by Rembrandt in the National Gallery of Art should not be cleaned. At that time, the committee staff told me that as far as they knew, I was the first member of the public who had ever come before the subcommittee to testify about the National Gallery of Art.

I unfortunately have a—there is a sort of sad development to this story. I am a free-lance journalist and up—before the time that I testified, Mr. Chairman, I was admitted to National Gallery press conferences whenever I chose to attend. Believe it or not, after testifying before your subcommittee, the press office of the National Gallery retaliated against me and ever since that testimony, they have not permitted me to attend a press conference.

I got to tell you, the first time that happened was at the William de Kooning exhibition. They have press conferences before the exhibits open, and I was standing outside the entrance to the east building, at 9 o'clock on that morning before the museum was open, and only members who were cleared go into the press conference, which I had done many times. Only those people are allowed into the museum at that time, and lo and behold, they had the chief of security, the deputy chief of security, they had been alerted, Murray White is not allowed to go to that press conference. I was furious.

As an American citizen, excuse me for testifying before Congress, they are going to retaliate against me?

Mr. REGULA. Was your testimony largely on the question of cleaning this painting?

Mr. WHITE. Entirely about cleaning Rembrandt paintings, not anything to do with waste, mismanagement, the allegations that have since surfaced in the media, allegations of racism on channel 7, nothing to do with that, just simply an art policy matter.

Mr. REGULA. Paintings, you mean plural?

Mr. WHITE. There were two Rembrandt paintings that I asked to save. This was the main one that I emphasized.

Mr. REGULA. You felt that cleaning would be destructive?

Mr. WHITE. Yes, sir. I am not opposed to all cleanings, but in the past when they have cleaned Rembrandt—over the years they get dirty, the varnish darkens.

Mr. REGULA. Because of the material they used in his particular painting?

Mr. WHITE. No.

Mr. REGULA. Or the medium that he was working with? Would his be different? We clean paintings all the time. I am just curious why this one is different.

Mr. WHITE. Okay, yes. The main thing is when he finished in making a painting, he would cover it with varnish, organic varnish over. Over the centuries, it turns darker and darker. Some of us, including Paul Mellon, like that darkened effect. It is an aesthetic decision.

Mr. REGULA. I get it. Okay. Got about a minute yet. Anything else?

Mr. WHITE. Well, I guess I would want to ask you, Mr. Chairman, if you could do anything to allow me to fulfill my mission as a journalist to attend the press conferences that I was able to attend on a regular basis before I came forward to testify.

Mr. REGULA. Let me make an inquiry on this one.

Mr. WHITE. Thank you.

Mr. REGULA. Thank you.

[The statement of Mr. White follows:]

"SAVE THE ST. PAUL PAINTING"
TESTIMONY ON THE NATIONAL GALLERY OF ART
MURRAY L. WHITE, PRIVATE CITIZEN
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
MARCH 24, 1995

Mr. Chairman, thank you very much for this opportunity to ask you to help protect a national treasure which has the power to inspire and edify millions of Americans but which is in danger of being altered and vastly diminished. I am referring to the painting entitled "The Apostle Paul," which was produced in the workshop of the great Dutch master Rembrandt van Rijn. By statute, it is the property of the American people since it is part of the permanent collection of the National Gallery of Art, which has requested approximately $64 million dollars for the next fiscal year.

On March 1, 1994, I came before this committee with the same plea. I stated that the National Gallery's curator with responsibility for its Rembrandts, Dr. Arthur Wheelock, had told me on August 20, 1992, during an on-the-record, tape-recorded interview conducted in my capacity as a free-lance journalist, the following: "We've been trying to clean all of our Rembrandts." I also stated that in a subsequent interview on February 15, 1993, Dr. Wheelock said the following in response to a question about the St. Paul painting: "That's a painting I would love to clean because it's filthy."

As someone who has studied and written about the gallery's Rembrandt holdings for the past seventeen years, I can state with complete confidence that this painting in its current condition provides visitors with an aesthetic experience of the absolute highest order. Its appearance has changed since its creation in the seventeenth century as its varnish darkened and dirt accumulated on its surface. However, if Dr. Wheelock is permitted to go ahead with his desire to clean the painting, its appearance would be drastically altered. Since it is already an image of perfection, the change would almost certainly be for the worse.

When Old Master paintings are cleaned, no one knows beforehand what the finished product will look like. Other Rembrandt paintings that have been cleaned by the National Gallery's conservation laboratory have ended up being diminished in their aesthetic power. The most glaring example of this is "The Mill," which was cleaned seventeen years ago. Three years ago, the museum cleaned Rembrandt's "Self-Portrait" of 1659 and it too has been diminished by the cleaning.

On March 3, 1994, Rep. Yates, at that time the chairman of the subcommittee, asked the National Gallery's director, Earl Powell III, a number of substantive, probing questions about the possible cleaning of this painting that were prompted by my testimony. Rep. Yates had gone to look at the painting with his own eyes so that his questions would be based upon his personal experience. This showed a concern about the art treasures housed in our national museums that is exemplary and I would like to express my gratitude to him for taking his responsibility as a custodian of these treasures so seriously.

On March 18, 1994, Mr. Powell wrote a letter to Rep. Yates in which he stated that he had consulted with his staff and determined that "there are no present plans to clean" the St. Paul painting. He stated that the same was true for "Woman with an Ostrich Feather," another Rembrandt painting that I argued should be spared from cleaning. Let me now reiterate my contention that this painting, for the same reasons that apply to "The Apostle Paul," should not be cleaned. For the record, I would like to correct an error in Mr. Powell's letter. He referred to my arguments as having been stated in a "letter." In point of fact, they were made in both oral and written testimony before the committee.

Mr. Chairman, Mr. Powell's letter does not alleviate my fears that these two Rembrandts will be cleaned and diminished. His statement that there are no "present" plans to clean them clearly leaves the door open to the possibility that there may be such plans in the future.

I would like to ask you, Mr. Chairman, to please extract from Mr. Powell a pledge that before these two paintings will ever be cleaned he will well beforehand notify you and the public of the museum's intention to do so. The notification to you and the public should be made at least six months before cleaning is scheduled to begin. This will allow interested parties, including members of the museum-going public as well as Rembrandt experts and eminent conservators, to have a chance to comment about the wisdom or folly of the proposed cleaning. If an outcry from the public and the experts is loud enough in opposition to the cleaning, the gallery may decide to change its plans and not go through with it.

Ultimately, what is at issue here is a question of power. Should the staff of the National Gallery, subject to approval of their board of trustees, be allowed to decide in a vacuum issues that will permanently affect artworks that belong to the American people? I believe the answer is a resounding "No." The American public must be permitted a say in how we want our national treasures to look.

An article in the March 1995 issue of "Art News" magazine quotes Pinin Brambilla Barcilon, the conservator working on the restoration of Leonardo da Vinci's "Last Supper" in Milan, as saying, "The real problem is whether or not an artwork SHOULD be restored, and this is a decision that rarely involves the restorer." I agree wholeheartedly. And I would add that such decisions, when the artworks in question belong to the American people, must be influenced by the public in a meaningful way.

I recently received a letter from Dr. John F. Asmus, a research physicist at the Institute for Pure and Applied Physical Sciences at the University of California, San Diego. He has given me permission to share the letter with the committee, and a photocopy of it accompanies this testimony. Dr. Asmus writes that his research over the past ten years has resulted in the capacity to produce computer-generated images of what an Old Master painting would look like if it were to be cleaned.

If large color photographs of such images were produced, in museums they could hang side-by-side with paintings that have become darkened with age. Viewers who prefer cleaner, brighter paintings would be able to see what the pictures would look like if they were cleaned, while at the same time viewers who prefer the mood and atmosphere of non-cleaned pictures could continue to experience them in the condition that art lovers have grown used to over many years. Best of all, this solution means that the paintings themselves would not be subject to the enormous range of uncertainties and risks that are encountered every time a conservator starts to clean an Old Master painting. As Dr. Asmus writes, "Computer 'restoration' is reversible and is not subject to the finality of physical restoration."

With respect to the National Gallery, Dr. Asmus' solution would allow the public to simultaneously enjoy the non-cleaned and "theoretically cleaned" painting of St. Paul. It strikes me that this would be an eminently fair way for Mr. Powell to cater to both Dr. Wheelock's desire to see what "The Apostle Paul" would look like if it were to be cleaned and my adamant opposition to risking the loss of the unlimited edification that the painting in its present condition is capable of providing to the American public.

Mr. Chairman, I would like to take this opportunity to address three other issues relating to the National Gallery. The first concerns the museum's plans to open a so-called "Micro Gallery" later this year or next year. This will consist of a bank of computer terminals which visitors will use to look at reproductions of the gallery's art collection and to plot out tours of the museum tailored to their specific interests.

My concerns are two-fold. In contradistinction to my support of using computers to avoid risky restorations, I fear that the use of computer screens for art appreciation poses a risk to the ancient and glorious tradition of connoisseurship, which requires looking at original artworks directly. With its "Micro Gallery," the National Gallery may be jeopardizing the cultivation of future generations' receptivity to this tradition of connoisseurship.

My advice would be for the gallery to move much more slowly on this front than is currently the case. It should first conduct an experiment involving one or two computer terminals to see if this is an effective program. Only after the experiment is completed successfully should it be allowed to create the full-scale "Micro Gallery" it envisions. According to a "New York Times" article of

August 7, 1994, "The National Gallery is an exception among major institutions in moving boldly into the computer era." While being an exception is, of course, not inherently wrong, the gallery should not be zooming full-speed ahead into an unknown territory that institutions such as the Metropolitan Museum are not entering into.

A second concern about this is the fact that, according to the same article, visitors using these computers will receive print-outs that carry the logo and name of a for-profit business concern. This may be a violation of Title 40, Section 193 of the United States Code, which states in regard to the National Gallery the following: "It shall be unlawful for anyone other than an authorized employee or concessionaire...to display any sign, placard or other form of advertisement." My views on this issue are stated in a letter to the "New York Times" of August 21, 1994, a copy of which is attached.

Another issue, Mr. Chairman, is the slow pace that the National Gallery takes when changing the label of a painting after research reveals that the label is in error. An article that I wrote discussing a recent example of this childish foot-dragging, "Truth in Labeling: The National Gallery Should Acknowledge That Its Poussin Is a Phony," was published in the "Washington Post" on November 13, 1994. A copy is attached.

Finally, Mr. Chairman, I want to express my outrage that following my appearance before your committee last year the National Gallery's press office retaliated against me. This is a reprehensible way for the museum to treat one of your committee's witnesses. One should not have to pay a price for testifying before your committee.

Before my appearance here, in my status as a free-lance journalist writing for various publications I attended approximately six of the press conferences that are held before the opening of new exhibitions. However, after testifying, I was suddenly barred from attending any press conference at the museum. The person directly responsible for this decision is Ms. Ruth Kaplan, the gallery's public information officer.

This first occurred last spring when I wanted to attend the press conference for the William de Kooning exhibition. I consulted the Reporters Committee for Freedom of the Press, whose staff informed me that federal court rulings on the First Amendment prohibit public entities like the National Gallery from denying journalists acess to press conferences on the basis of their previous work. Nevertheless, Ms. Kaplan has continued through this year to deny me admittance to press conferences. Mr. Chairman, this vindictiveness on the part of an agency of the federal government is an arrogant slap-in-the-face to treasured American values. Please do whatever you can to ensure that I may once again attend the press conferences that I attended on a regular basis before I testified before your committee. Thank you very much.

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DIRECTOR
LU J. SHAM

ASSOCIATE DIRECTOR
C. FRED DRISCOLL

February 12, 1995

Mr. Murray White
c/o American Enterprise Institute
1150 17th Street, NW
Washington, DC 20036

Dear Mr. White:

Thank you for the information on masterpiece paintings that are currently being considered for restoration/conservation.

I would like to point out to you that in 1985 my institution began a three-year research investigation on computer image enhancement of artworks. This work was funded by the National Science Foundation and was awarded the 1989 IBM Supercomputing Prize. The effort produced computer software algorithms for the image "restoration" of paintings. In brief, we developed techniques that could remove discoloration and craquelure from fine art images without resorting to any physical intervention on the actual piece. In some instances we also demonstrated the removal of overpainting and the interpolation of losses through computer-generated images. In contradistinction to physical restoration we found that the image of an individual piece could be "restored" in a number of different ways to optimally reveal and display different features of a painting. Thus, computer "restoration" is reversible and is not subject to the finality of physical restoration.

Between 1976 and 1989 we employed computer image enhancement to works by Leonardo da Vinci, Raphael, Pordenone, and Rembrandt as well as to Lascaux Ice-Age cave paintings. The technique has been shown an adjunct to conventional painting conservation. In some instances it may be a viable alternative to certain physical restoration operations.

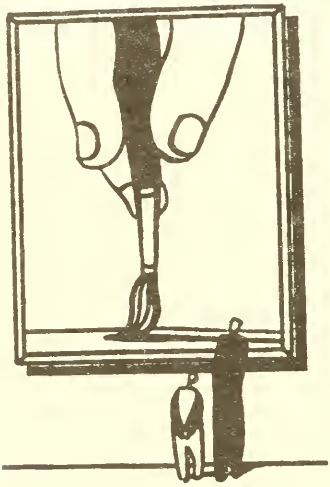
Yours sincerely,

John F. Asmus
Research Physicist

The New York Times
Arts & Leisure

SUNDAY, AUGUST 21, 1994

LETTERS



Illustrations by Alison Seiffer

ART ON LINE

Temple of Art Or Bordello?

To the Editor:

As Phil Patton points out in "The Pixels and Perils of Getting Art On Line" [Aug. 7], there is wide disagreement in the art world as to whether it is a good idea or a frightening one for museums to court new visitors by digitizing their art collections. Personally, I fear that the trend of looking at art masterpieces on computer screens poses an additional threat to the ancient and noble tradition of art connoisseurship, which is already under serious assault by PC-obsessed yahoos on college campuses.

That the National Gallery of Art, with its projected Micro Gallery, is playing the lead role among the nation's major art museums in this regard is not only disappointing but perhaps illegal. Title 40, Section 193 of the United States Code, which includes Federal statutes relating to the National Gallery, states the following: "It shall be unlawful for anyone other than an authorized employee or concessionaire ... to display any sign, placard or other form of advertisement."

Mr. Patton informs us that the "name and logo" of American Express will "appear on each sheet printed out" by the computers in the Micro Gallery. If that is not a form of advertising, I don't know what is.

When the United States Congress in 1937 accepted Andrew Mellon's gift of paintings and a building to house them in, it was to enable our citizens to appreciate world-class art without having to pay admission, not to provide a classy venue for corporate hucksterism. The trustees of the National Gallery, who include Chief Justice Rehnquist, Secretary of State Christopher and Treasury Secretary Bentsen, should be ashamed of themselves for allowing Mr. Mellon's temple of art to be corrupted into a bordello of crass commercialism.

MURRAY WHITE
Washington

THE WASHINGTON POST SUNDAY, NOVEMBER 13, 1994

Truth in Labeling

The National Gallery should acknowledge that its Poussin is a phony.

The director of the National Gallery of Art, Earl A. Powell III, has addressed in an unsatisfactory manner the issue of why the gallery's painting of "The Holy Family on the Steps" continues to be labeled as the work of Nicolas Poussin, the greatest French painter of the 17th century, even though Powell and his curators have known since a meeting of scholars in May that this is a false attribution [Style, Oct. 13].

Powell said his museum "has well-established procedures for dealing with questions that arise about the attribution of a work of art" and that the procedures "may take place over a period of years" [letters, Oct. 22].

Central to these procedures is the requirement that the gallery's board of trustees approve any changes in attributions. This means that before the label on "The Holy Family on the Steps" can be changed, such renowned art historians as Chief Justice William Rehnquist, Secretary of State Warren Christopher and Treasury Secretary Lloyd Bentsen must cast their votes as to whether it was painted by Poussin.

With all due respect to these three public servants, who together are a third of the board of trustees, what academic qualifications do they have for making this judgment? The museum's director ought to be given the power to change attributions after consulting with the gallery's curators. This would bring the National Gallery's procedures in line with those of almost every other major art museum in the world.

Until such procedures can be put in place, Powell should not hide behind a bureaucratic fig leaf. Whenever the overwhelming scholarly consensus is that an artwork in the museum is falsely labeled, it is his obligation to expedite the procedures for correcting the label through such means as calling an emergency meeting of the trustees or arranging a telephone conference call with them. It is preposterous to wait months or even years to ask the trustees to rubber-stamp their acknowledgment of what readers of The Post already know to be true: the "Poussin" is a phony.

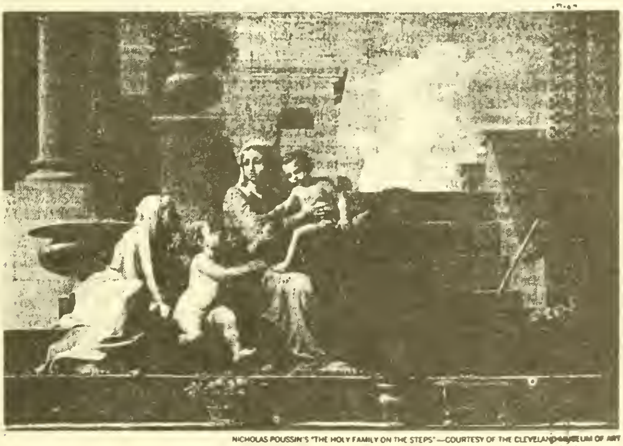
As a prominent member of the Association of Art Museum Directors, Powell ought to know that he is in violation of that organization's ethical guidelines for operating art museums, which are set forth in the 1992 document "Professional Practices in Art Museums." In the section discussing the operation of a museum's public programs, Paragraph 31 states: "In particular, every effort should be made to avoid incorrect attributions." One of the authors of the document is J. Carter Brown, Powell's predecessor as director of the National Gallery.

Powell also appears to be in disregard of the wishes of the gallery's trustee emeritus, Paul Mellon, who in addition to being the son of the National Gallery's founder, Andrew Mellon, has been one of the most generous donors in the museum's history. In his 1992 memoirs, "Reflections in a Silver Spoon," Mellon discusses the conditions under which he donates artworks to public museums. He writes, "In regard to attributions, I would always hope that the latest and best scholarship should prevail, let the chips fall where they may."

Finally, by failing to expedite a prompt change of attribution, Powell is involved in an act of academic obstructionism. His lack of action has prevented the publication of a scholarly article on the painting written by his own curator of French paintings in conjunction with a curator at the Cleveland Museum of Art, which owns an authentic Poussin painting depicting the same scene.

Each year, before appropriating about $55 million to the National Gallery, Congress conducts what are usually perfunctory oversight hearings on the museum. At the hearings next winter, Powell ought to be pressed to explain why he is content to deceive the American people about a painting that, after all, by statute belongs to them. In the meantime, perhaps the museum's trustees will demonstrate enough of a collective conscience to promptly vote for a truthful label that will bring this embarrassing episode to an end.

—Murray White
is a librarian for the American Enterprise Institute.



NICHOLAS POUSSIN'S "THE HOLY FAMILY ON THE STEPS"—COURTESY OF THE CLEVELAND MUSEUM OF ART

[COMMITTEE NOTE.—Letters from the National Gallery of Art follow which respond to Mr. Regula's inquiry:]

National Gallery of Art

Washington, D.C. 20565

Office of the Director

6 April 1995

Dear Mr. Chairman,

I appreciate your forwarding Murray White's prepared testimony of March 24 before the Subcommittee on Interior and Related Agencies and your requesting our clarification and response.

I am enclosing a copy of my letter to The Honorable Sidney R. Yates of March 18, 1994, in which we thought we had answered Mr. White's concerns regarding the cleaning of the two Rembrandt paintings. For the record, let me reiterate that there are no present plans to clean the painting to which Mr. White refers. I would like to assure you, however, that the decision to conserve a work of art is made only after a careful study, review and consultation process, often over a lengthy period of time, with curators, conservators, and scholars from museums and universities throughout the world. When a painting is conserved, the primary goal is to return the work to an appearance as close as possible to the artist's intentions; many years of dirt and discolored varnish drastically alter the artist's original intent. The care for the nation's art collection resides with the National Gallery of Art and its Board of Trustees, and this is a responsibility that is taken with the greatest consideration and care.

In response to another topic mentioned by Mr. White in his prepared testimony, changes of attribution of works of art in the collection of the National Gallery are made following well-established procedures, involving both scholarly and scientific research that usually takes place over a period of years. It is only after extended research and technical study by the Gallery's curators and conservators, often with consulting specialists from the international community, that the results of such studies, if warranted, are submitted to the director and Board of Trustees with a recommendation for a change of attribution. We are certainly prepared to change an attribution when the evidence and the weight of scholarly and scientific research warrant reattribution.

Mr. White's prepared testimony also discusses the Micro Gallery. This is an interactive computer information system that enables visitors to explore various ways of looking at works of art in the collection. It is based upon the Micro Gallery at London's National Gallery, whose outstanding success with the museum-going public we have studied since it opened 5 years ago. The Micro Gallery is not intended to provide images as a substitute for the original works of art. Rather, it is an informational and educational tool to help visitors further understand and appreciate the works of art and their location in the galleries. Our project, like that in London, is funded by a major grant from the American Express Foundation. The American Express corporate logo will not appear on the Micro Gallery printouts and has never been proposed or discussed. This was inaccurately reported in a New York Times article on the Micro Gallery last summer. Use of such a logo would not conform with our guidelines regarding corporate support.

And, lastly, I would like to assure you that we have not denied Mr. White access to the press breakfasts as a result of his testimony to the Subcommittee last year. These events are occasional, small due to space restrictions, and accompany our press previews. Mr. White has been invited to such press previews subsequent to his testimony last year.

I would be pleased to discuss further any aspects of the Gallery with you when your schedule permits. Thank you.

With kind regards,

Sincerely yours,

Earl A. Powell III

The Honorable
Ralph Regula
Chairman, Subcommittee on the
Department of Interior and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, D. C. 20515

Enclosure

National Gallery of Art

Washington, D.C. 20565

Office of the Director

March 18, 1994

Dear Mr. Chairman:

Thank you for sharing with me the letter written by Mr. Murray White at the Gallery's recent appropriations hearing, which I have passed on to my staff.

Mr. White proposes that the Gallery not clean two of its Rembrandt paintings and recommends the services of Mind Guided Technologies Incorporated (MGTI) to document the effect that a visual image of a painting can have on the human brain waves, muscle tone, skin resistance, temperature and blood pressure, utilizing information processed through digital images. We are pleased to know of Mr. White's great interest in Rembrandt.

There are no present plans to clean Rembrandt's "The Apostle Paul", or "Woman with an Ostrich Feather". Such decisions are very carefully reviewed. As you know, the National Gallery of Art has assembled a distinguished group of curators and painting conservators who are responsible for keeping abreast of the latest scientific developments related to the care of collections. I can assure you that the task of preserving the nations's art collection for posterity is not one that is taken lightly. Conservation is at the core of our mission and is only undertaken after the deepest study and consultation.

We are grateful for your interest in the Gallery.

With warm best wishes.

Sincerely,

Earl A. Powell III

The Honorable Sidney R. Yates
Chairman, Subcommittee on the
Department of Interior and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, D.C. 20515

FRIDAY, MARCH 24, 1995.

U.S. GEOLOGICAL SURVEY: BUREAU OF MINES

WITNESS

DONALD M. HOSKINS, PRESIDENT, ASSOCIATION OF AMERICAN STATE GEOLOGISTS

Mr. REGULA. Association of American State Geologists, Mr. Hoskins.

Mr. HOSKINS. Mr. Chairman, thank you very much.

Good afternoon. I am Donald M. Hoskins, the president of the Association of American State Geologists and director of the Pennsylvania Bureau Topographic and Geologic Surveys.

Many of the State surveys which I represent have parallel programs to programs in the USGS, Bureau of Mines, and MMS to some extent. Many of us developed cooperative arrangements with these agencies——

Mr. REGULA. You are talking about on an agency-to-agency basis, not individually.

Mr. HOSKINS. No, agency to agency. Preparation of geological maps, evaluation of mineral resources through basic data collecting and reporting of mineral production statistics. Because of our long association and interaction with these agencies and their programs, we requested and we appreciate very much the opportunity to speak for you today.

Our Nation and each individual citizens of our United States is dependent upon the earth's resources. As our national population increases, there is greater demand and increased competition for the available land surface and its included energy materials and water resources.

Mapping, defining and tabulating these resources and identifying the natural geologic hazards and other phenomenon from our Nation's complex geology is the mission of the USGS as well as in part both USBM and MMS as well as is the mission of each State survey.

Geological phenomenon are not constrained by political boundaries. Federal agencies that conduct national programs have a very important and even nationally critical role in the collection, interpretation and presentation of geoscience data for the beneficial use of all individuals.

The AASG supports continuation of the core national programs of the USGS, MMS and USBM. Those programs that address critical national health, safety and welfare issues through basic geoscience, data collection, analysis and distribution. These core programs provide a fundamental benefit to our citizens that is not provided through any other separate Federal or private State programs. These programs are listed with additional commentary in our written statement. Each deserves continued funding through appropriation bills that you will present to the Members of the House of Representatives.

In recent years, members of the association have sought to develop joint cooperative agreements for identification and resolution of State and national geoscience priorities. The most successful of these cooperative efforts was the enactment of the National Geologic Mapping Act of 1992. This act established that available geologic maps on a scale and quality sufficient to resolve national problems was woefully inadequate.

Under the newly appointed management of the USGS, this national cooperative program seems to be moving finally forward. The AASG urges the appropriations subcommittee to support the national cooperative geologic mapping element of the geologic framework and processes program as a nationally critical geoscience program.

We recommend that the STATESMAP subelement should receive or provide 20 percent of the fiscal year 1996 program funds through peer review, competition to the States where it is matched with an equal amount of State funds.

We also recommend full support of the national mapping division programs. This division of all three USGS divisions has consistently contacted his clients and sought comments on its products.

The AASG recommends that your committee provide support for all nationally important geoscience and mapping programs that are identified in our written statement. The results of your support will provide our Nation with a overall regional, unbiased, scientific, practical, results-oriented basis for environmental and ecosystem understanding of protection, national hazard avoidance and mitigation and natural resource assessment and conservation.

The Federal agencies conducting these programs should work closely and in full cooperation with counterpart State agencies to provide the larger framework on which to build the local solutions to problems and issues resulting from the complex geology of our Nation.

We recommend that where solutions to national issues require regional investigations, resources should be provided to the States through these Federal agencies for the most cost-efficient accomplishment of the tasks under their oversight. We offer that some of the geoscience activities presently conducted by these Federal agencies could be accomplished more efficiently with less cost by State agencies.

Finally, we suggest that these geoscience programs would benefit from oversight and evaluation by peer review groups made up of Federal agency private user and State agency clients who are knowledgeable of the nationally critical present day user needs for geoscience information and products.

Thank you very much.

Mr. REGULA. Thank you.

[The information follows:]

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

MARCH 24, 1995

STATEMENT OF THE ASSOCIATION OF AMERICAN STATE GEOLOGISTS

Donald M. Hoskins, (Ph. D.) President

BACKGROUND

Good afternoon. I am Donald M. Hoskins, President of the Association of American State Geologists (AASG) and Director of the Pennsylvania Bureau of Topographic and Geologic Survey. State Geological Surveys, whose Directors are members of the Association, and the two Bureaus of the Department of Interior that conduct most geoscience investigations, the U. S. Geological Survey (USGS) and the U. S. Bureau of Mines (USBM), have interacted since the latter two were constituted by Congress. State Geological Surveys were formed early in the history of the states, some starting in the early 1830's. These state agencies serve the citizens of each state through geological mapping investigations oriented to discovering, analyzing and describing the geologic framework of each state as well as the energy, mineral and water resources of the respective states. Many of the State Geological Surveys have parallel programs to programs in the USGS and USBM, focusing principally on basic geoscience data collection, geologic mapping, mineral and water resource evaluations and identifying geologic hazards. Many of the State Geological Surveys early on developed cooperative arrangements with the USGS and USBM for creation of topographic maps, preparation of geologic maps and evaluation of mineral resource through basic data collection and reporting of mineral production statistics.

The AASG was formed in the early 1900's, with support of the USGS, in order to better serve the citizens of each state through consideration of geological problems that do not end at political boundaries, and to coordinate the work of each Survey with the work of the USGS to avoid duplication.

NATIONAL GEOSCIENCE NEEDS

Our society and each individual citizen of our United States is dependent on the earth's resources. As our national population increases, there is greater demand and increased competition for the available land surface and its included energy, materials and water resources. Mapping, defining and tabulating these resources, and identifying the natural geologic hazards and other phenomena that result from our nation's complex geology is the mission of each state's geologic survey and is the mission of the USGS as well as, in part, the USBM.

Geologic phenomena are not constrained by political boundaries, but are the result of the long and complex history of our continent and its predecessors. It is for this reason that federal agencies, in partnerships with State Geological Surveys, have a very important, and even nationally critical, role,, in the collection, interpretation and presentation of geoscience data for the beneficial use of all individuals, as well as private and public entities.

The AASG supports continuation of the core national programs of the USGS and USBM that address critical national health, safety and welfare issues through basic geoscience data collection, analysis and distribution. These core programs provide a fundamental benefit to our citizens that is not provided through any other separate federal, private or state program. These core programs deserve continued funding through Appropriation Bills presented to the members of the House of Representatives by the Committee on Appropriation's Subcommittee on Interior and Related Agencies.

U. S. GEOLOGICAL SURVEY

In the last several decades there has been a lessening of interaction, and a reduction in communication and cooperation, between State Geological Surveys and the USGS. This is because we believe that the USGS has focused some of its investigations on large-scale research topics that are less oriented to current need of U. S. citizens and other clients for information about regional problems solvable or mitigated through geoscience investigations. In some cases, there has been active competition between the federal survey and some of the state's surveys, particularly in the area of water-resource investigations. We suggest that, as State Geological Surveys and the USGS and USBM seek to become more responsive to our Nation's citizens, partnerships replace competition and there be greater cooperation and communication through sharing of priorities, talents and resources.

In recent years, members of the AASG, individually and through the Association, have sought to develop joint cooperative agreements for the division of geoscience labors and for identification of state and national priorities. The most successful of these cooperative efforts was the passage of the National Geologic Mapping Act of 1992 (P. L. 102-285). This act established that available geologic maps of a scale and quality sufficient to resolve critical public health, safety and welfare problems in our nation were woefully inadequate and that, through the joint efforts and pooling of federal and state resources, a national program could be established that would address this inadequacy. Resolving the national problem was urged by the National Governors Association (NGA) through adoption of Policy NR-17 in 1991, and reaffirmed by the NGA in January 1995. Under the newly appointed management of the USGS, this national cooperative program seems to be finally moving forward.

The AASG urges that the Appropriations Subcommittee on Interior and Related Agencies support the National Cooperative Geologic Mapping Element of the Geologic Framework and Processes Program as a nationally critical geoscience program. Geologic mapping provides the basic geologic data that supports all other geoscience investigations, assessments and applications, and is the necessary infrastructure for all such investigations. The STATEMAP subelement should provide 20% of FY 1996 program funds through peer-reviewed competition to the states, where it would be matched with an equal amount of state resources.

ADDITIONAL NATIONALLY CRITICAL PROGRAMS OF THE USGS

One of the programs of the **Geologic Division** of the USGS that is considered by the AASG as nationally critical is : **Geologic Hazards Surveys**, especially the Landslide Hazards, Earthquake Hazards Reduction and Volcano Investigations program subelements. We recommend that the USGS review its policy of support to regional seismic networks that record seismic events below the currently measured thresholds. Although significant physical damage is not expected from low-energy events, all events cause public concern. The well-being of our citizens, which is ensured by information from such cooperatively supported networks, is sufficient justification for support of regional seismic networks as a national priority.

In addition, **Marine & Coastal Geologic Surveys,** especially the Natural Hazards & Public Safety and Natural Resources program subelements and portions of the **Mineral and Energy Resource Surveys** Programs, especially the Energy & Mineral Resource Investigations and Assessments program subelements are important to the states.

The AASG regards **all programs of the National Mapping Division** (NMD) as nationally critical programs. Topographic maps prepared to a national standard serve all federal, private and state agencies and individual activities that require maps having detailed, accurate locations and depiction of land surfaces. The highest priority, in our opinion, of the NMD programs is the Cartographic Data and Map Revision and Data Cooperative/Partnerships programs included in the overall National Map and Digital Data Production Program.

The AASG regards the basic **Data Collection and Analysis** element of the Water Resource Division's programs as, presently, the most critical national program among the many valuable programs of this Division. In addition, the **Federal State Cooperative** and the **National Water Quality Assessment Programs** also deserve Subcommittee support.

U. S. BUREAU OF MINES

The AASG is concerned about the future of the U. S. Bureau of Mines. All states have benefited from the products and services provided by Bureau programs. We feel that there remain important national needs for programs administered by this agency. The administratively authored budget reduction of $20 million in the present fiscal year and a similarly recommended reduction for FY 1996 have, seriously reduced the Bureau's ability to continue to provide its important services.

The Bureau has made significant efforts at restructuring its programs under new leadership. We recommend to you that the Bureau be allowed to continue this restructuring within its proposed reduced budget. This restructuring should be allowed to proceed following the guidance now being recommended by the National Research Council (NRC).

Currently the NRC is reviewing the entire research program of the Bureau. It has just released the first year's report, which includes high marks for research in health and safety; other research programs are not rated as highly. The quality research in health and safety is due to cooperation and partnerships with the Mine Safety and Health Administration and private industry, a process that guarantees that products and services meet user needs. The NRC concludes that some Bureau Research Centers are doing a good job while other centers are less effective. We recommend that Congress wait until the NRC has completed its evaluation and that you carefully consider NRC recommendations before deciding the ultimate fate of Bureau research programs.

We also feel that the Bureau could serve a very important function by directing federally funded research at key universities. The Mineral Institutes is such a program, although it is scheduled for extinction in the recommended restructuring. This program could be turned into a national asset under strong Bureau guidance. One of the ways that Bureau research can stay at the cutting edge is through participation by, and interaction with, university-based researchers.

The Bureau collects, collates and distributes statistics on our nation's mineral industry, as well as for foreign producers. This is an important national database program that deserves the support of your committee. Information from this program was used to evaluate our supply of so-called strategic and critical minerals, and those mineral commodities that our nation did not possess in abundance and had to import, during the Cold War. In the present climate of international trade and tensions, the words "strategic" and "critical" are just as valid today as then. Today, knowing where new sources of mineral-based materials can be obtained is critical to our mining and manufacturing industries, especially as domestic producers move their activities out of the United States. The USBM already collects these data, but needs to recast the analysis to assist our domestic industry. We believe that this new effort may become one of the Bureau's most important national functions.

Through its field programs, the Bureau has provided critical data for determining the mineral potential of federal lands that may be withdrawn from mineral entry, such as in wilderness lands and national parks. This work is not finished and has been joined by another national priority need, the recognition and mitigation of environmental and physical hazards at abandoned mine sites throughout our nation. The Bureau's field staff is very qualified and is well suited for a national abandoned mine program.

The Bureau has made major changes in the past year in addressing the need for change. Their new master plan for "reinventing" the agency includes division of effort into four major program units: Health & Safety, Environmental, Information and General Administration. We believe that this reorganization is correct, and with guidance from a management council and external advisory committee, the Bureau's programs should better serve the needs of our nation in the coming century. The Association supports continuation of a reduced-size, efficient, Bureau of Mines whose programs provide important products and services that can only be accomplished by a national agency through appropriations adequate to support their core programs mentioned above.

SUMMARY

The AASG recommends that the Appropriations Subcommittee on Interior and Related Agencies provide sufficient support for nationally important geoscience programs that would provide an overall, regional, unbiased, scientific, practical, results-oriented, basis for environmental and ecosystem understanding and protection, natural-hazard avoidance and mitigation, and natural-resource assessment and conservation. These federal agencies should work closely, and in full cooperation, with counterpart state agencies to provide the larger framework on which to build the local solutions to problems and issues resulting from the complex geology of our nation.

Where solutions to national issues require regional investigations, resources should be provided to the states through these federal agencies for the most cost-efficient accomplishment of the tasks under their oversight. We offer that some of the geoscience activities presently conducted by these federal agencies could be accomplished more efficiently and with less cost by state agencies.

Finally, we suggest that these geoscience programs would benefit from oversight and evaluation by a peer-review group made up of federal agency, private user and state-agency clients who are knowledgeable of nationally critical, present-day, user needs for geoscience information and products.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY EFFICIENCY AND WEATHERIZATION, THE ALLIANCE TO SAVE ENERGY

WITNESSES

DAVID M. NEMTZOW, PRESIDENT, THE ALLIANCE TO SAVE ENERGY

LARRY LACH, DIRECTOR OF GOVERNMENT AND ASSOCIATION MARKETING, SCHULLER INTERNATIONAL

Mr. REGULA. The Alliance to Save Energy. Statements plural or one statement?

Mr. NEMTZOW. Plural.

Mr. REGULA. They are both here, okay. They will both be made a part of the record. You have five minutes.

Mr. NEMTZOW. Thank you very much, Mr. Chairman.

I am David Nemtzow. I am the president of the Alliance to Save Energy, and I want to thank you for allowing the alliance to testify before you today on the Department of Energy's fiscal 1996 budget.

I am accompanied today by Larry Lach. Larry is the director of government and association marketing for Schuller International, a world leader in insulation production and one of more than 100 companies that belong to the Alliance to Save Energy.

Mr. REGULA. Where are you located?

Mr. LACH. We have five facilities in many States. We are headquartered in Denver, Colorado. We have facilities in Ohio, Georgia, California.

Mr. REGULA. You market through the lumber outlets to the home building industry?

Mr. LACH. Yes, through lumber outlets and also insulation contractors.

Mr. REGULA. Industrial as well as residential?

Mr. LACH. Industrial as well as commercial and home building.

Mr. REGULA. Got it.

Mr. NEMTZOW. The Alliance to Save Energy is a bipartisan nonprofit organization chaired by——

Mr. REGULA. You have similar types of companies that market these energy-saving materials?

Mr. NEMTZOW. We do. We also have a lot of companies, utility companies, energy companies, energy using companies too, the whole spectrum of energy interests. We are also—so you know, Mr. Chairman, we were founded by Senator Charles Percy in 1977 and are currently co-chaired by Senator Jeff Bingaman and Senator James Jeffords. We are a bipartisan group and we truly are an alliance of companies.

Mr. REGULA. So are you a nonprofit.

Mr. NEMTZOW. Yes, sir, 501(c)(3). So we are an alliance in more than just name. We are working with private industry, government leaders to try to bring together successful energy efficiency.

Mr. REGULA. You get your financing from contributions from your members.

Mr. NEMTZOW. Yes, sir.

Mr. REGULA. As well as others? I assume you are interested in the efficiency programs of DOE.

Mr. NEMTZOW. That is right, and other agencies, but I am here today on the DOE programs.

Mr. REGULA. You got a couple minutes.

Mr. NEMTZOW. Yes, sir. If I could just say——

Mr. REGULA. Go ahead.

Mr. NEMTZOW. I would like to include for a record the list of our members and our board for the record.

We believe at the alliance that the most successful programs are going to be the voluntary partnerships between the Federal Government and State government, between the government and private industry. Those are the ones that are going to work. We have believed that since 1977.

I am here to say to you that I think the Department of Energy has finally gotten that message and a lot of their most successful programs and the ones that we think deserve your support are ones that are based on that philosophy. I would just like to list which ones we think are the highest priority and allow Mr. Lach to testify.

The building standards and guidelines program, very innovative, working to be creative, mortgage and other products. Lighting and appliance standards, one of the best deals for the taxpayer. Federal energy management, I am sure you are quite familiar with that and how we can save money for the taxpayers. Export promotion, to expand world markets. For a lot of—they are a big company, a multinational. There are a lot of small companies that need some help from the Federal Government. Industrial energy-efficiency, you have heard a lot about EADC.

Our newest study, I would be happy to provide it, is on helping small manufacturers use energy more efficiently and how we can help them.

Mr. Lach.

[The information follows:]

TESTIMONY OF
DAVID NEMTZOW
PRESIDENT
THE ALLIANCE TO SAVE ENERGY

BEFORE THE APPROPRIATIONS COMMITTEE SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES ON THE FY96 BUDGET FOR D.O.E. ENERGY EFFICIENCY PROGRAMS

MARCH 24, 1995

Mr. Chairman and Members of the Subcommittee. Thank you for the opportunity to testify before you today in support of the Administration's Fiscal Year 1996 requested increase in spending for the Department of Energy's energy efficiency programs.

My name is David Nemtzow. I am the President of the Alliance to Save Energy, a bi-partisan, non-profit coalition of business, government, environmental, and consumer leaders dedicated to improving the efficiency with which our economy uses energy. The Alliance was founded in 1977 by Senators Charles Percy and Hubert Humphrey; it is currently chaired by Senators Jeff Bingaman and James Jeffords.

I am accompanied today by a representative of one of the one hundred companies that belong to the Alliance to Save Energy. Larry Lach is the Director of Government and Association Marketing for Schuller International. Schuller International is one of the world's leading manufacturers of insulation and other building materials, with more than 30 production facilities and 7,000 employees. If it pleases the Chairman I would like to include for the record a complete list of the Alliance's Board of Directors and Associate members, which includes the nation's leading energy efficiency firms, electric and gas utilities, and other companies committed to cutting their energy bills.

The Alliance has a long history of researching and evaluating federal energy efficiency efforts. We also have a long history of supporting efforts to promote energy efficiency that rely not on mandatory federal regulations, but on partnerships between government and business and between the federal and State governments. I am here today, Mr. Chairman, to say that I strongly believe that many of the Department of Energy's efficiency programs are based upon this same philosophy of achieving national economic goals by way of voluntary partnerships that the Alliance supports.

We respectfully urge the Subcommittee to adopt the Administration's request so that the national economy will benefit fully and more quickly from energy efficient technologies and measures. Mr. Chairman, from your years of commitment and leadership on these issues, this Subcommittee knows well that vigorous D.O.E. energy efficiency programs will help clean the environment, enhance national security, and save billions of dollars in energy bills for businesses and families. Just as importantly, energy efficiency creates jobs -- not just theoretical jobs, but real jobs at good wages, as Schuller International demonstrates every shift, every week, every payday. Just ask their workers in any of their facilities. By supporting a growth and redirection of these programs, this Subcommittee can help hundreds of other companies nationwide create jobs by using energy more efficiently and by deploying energy efficiency technologies in the U.S. and international marketplace.

The Administration is proposing increasing D.O.E.'s spending on energy efficiency by 16 percent over FY95 levels. However, even if all of the Administration's recommendations were adopted, efficiency would still represent less than one-third of D.O.E.'s spending on energy resources and only about 5 percent of D.O.E.'s overall budget.

Increasingly effective leadership by Secretary O'Leary and Assistant Secretary Ervin at the Department of Energy -- along with the opportunities presented by the Energy Policy Act of 1992 -- underscore the essential need for funding the Administration's request. Furthermore, I respectfully suggest that the Subcommittee should be reassured that increased funds will be spent efficiently and productively at D.O.E. The Alliance to Save Energy is committed to helping make this happen.

I would like to mention in particular a few of D.O.E.'s energy efficiency programs for which the Alliance strongly believes that the Administration's budget requests are of the highest priority in order to meet our shared goals of economic health, conservation of natural resources, and job creation.

Building Codes and Standards. The Energy Policy Act of 1992 (EPAct), like other laws before it, does not dictate energy efficient building codes to the States and localities, but rather authorizes D.O.E. to provide technical assistance to encourage States to adopt such codes. This work is now underway and has enormous potential, especially in the 36 or so States that have not yet adopted energy efficient codes. The Alliance is very active in the issue of building codes and we most strongly recommend full support for the $24.6 million request to support adoption and enforcement of building codes and standards.

Home Energy Ratings and Energy Efficient Financing. After the mortgage payment, the single largest contributor to housing affordability is a reduction in utility expenditures. EPAct wisely recognized that the non-uniformity among home energy labeling programs often confused home buyers and homeowners and had little credibility with mortgage lenders when assessing the value of home energy improvements. The new voluntary home energy rating systems guidelines being developed by D.O.E. and the five-state FHA energy efficient mortgage pilot program will remove many of the existing barriers. D.O.E.'s continued leadership on this section of EPAct is essential. Also, America's 70 million existing homeowners have no place to turn for financing energy upgrades at the time of resale or refinancing. Thanks to the efforts of the secondary mortgage industry lead by Fannie Mae and with the timely assistance of D.O.E.'s Affordable Housing Partnerships Program, for the very first time unsecured energy improvement loans up to $15,000 are ready to be marketed nationwide. These initiatives must be supported financially to create an effective delivery mechanism in a marketplace fraught with nonuniformity, diverse special interests and deal-killing financial and appraisal procedures. We respectfully urge you to provide the $2.4 million that D.O.E. needs for this program, which is contained within the $24.6 million listed above for Building Codes.

Lighting and Appliance Standards. There is perhaps no better energy efficiency bargain for taxpayers than lighting and appliance standards. EPAct set numerous new standards in statute but also called on D.O.E. to conduct research and examine a rulemaking to explore the value of other new standards. The Alliance has been working closely with manufacturers and D.O.E. to develop appropriate new testing regimes and standards. The program will save consumers $4.8 billion annually and create 7,000 net jobs by the year 2000. We highly recommend that the Subcommittee support the Department's efforts, which would require the $10.4 million request.

Federal Energy Management. After years of neglect, the Administration is re-committing itself to saving energy and taxpayers' money by investing in federal buildings. The request of $25.4 million is quite modest considering that the annual bill to heat and cool federally owned and occupied buildings is about $4 billion annually; the Alliance to Save Energy has determined that the federal government could easily cut $1 billion off its own energy bill just by using existing, off-the-shelf, cost-effective measures. Despite previous neglect, FEMP has still made significant progress. From the base year of 1985, energy costs for the federal government in 1995 will be $1.5 billion less than they would have been without energy-saving programs instituted by FEMP, and these programs are expected to save the government an additional $400 million annually by the year 2000. A new rulemaking and Executive Order will enhance the ability of federal energy managers to use D.O.E.'s FEMP funds effectively and we strongly support funding no less than the Administration's request.

Export Promotion. The Alliance to Save Energy recently completed a survey of small to medium sized energy efficiency businesses who told us that the most useful role for the government is to conduct market assessment and identify potential markets abroad. Domestic efficiency firms are looking forward to selling their products and services abroad, but need technical and other support from D.O.E., which is now starting under the aegis of COEECT, the Committee on Energy Efficiency Commerce and Trade. We strongly support no less than the Administration's request of $5.1 million for COEECT and related activities in FY96.

Industrial Process Efficiency. For small to medium sized manufacturing firms using energy efficiently can often mean the difference between investing in new capital and closing their doors. Unfortunately, many of these companies do not have the technical resources to make cost-effective decisions and will miss golden opportunities not only to reduce energy costs, but related pollution prevention opportunities. A key way in which small and medium-sized manufacturers gain information about efficiency improvements which they can make is through D.O.E.'s Energy Analysis and Diagnostic Centers (EADCs). Since 1976, EADCs have conducted free energy and environmental assessments for 5,100 businesses which have subsequently saved those companies $517 million. This is a program that works. The Alliance strongly supports the $9.2 million Administration request for EADCs.

State Energy Conservation Planning. For decades the States have been the front line of energy policy in this country, not only conducting essential planning functions but experimenting in policies that have often led to successful national policies. The Administration is right to continue to rely on the States as full partners in energy efficiency and to increase support for these programs. The Alliance to Save Energy supports the full funding of $24.7 million for SECP and for other State-based programs. I commend you to the testimony of Larry Bean, the Chairman of the National Association of State Energy Officials.

Integrated Resource Planning. By any measure one of the most successful efforts to improve energy efficiency in the past decade has been the adoption of Integrated Resource Planning by the State utility commissions and utility companies. In many States energy conservation investments by utilities is now a profitable venture, thereby encouraging creative and effective responses by these companies. With the electric utility industry about to face enormous challenges, we recommend full support of $9.9 million for IRP program so that D.O.E. can provide needed technical assistance to State commissions to help them adopt and update their regulations.

Weatherization Assistance Program. The Weatherization Assistance Program has been hugely successful at saving energy while increasing the economic capability of primarily low-income Americans. Given in the form of grants to state agencies, the weatherization program has lowered the costs of more than 4.4 million homes, while saving the equivalent of 12 million barrels of oil. In addition, the program has been successful at leveraging over $200 million annually in outside resources, increasing the number of assisted homes to 225,000 per year. For each million dollars invested in the program, 52 people are employed directly, and another 22 indirect jobs are created. Weatherization is an activity which substantively improves the quality of life of Americans who need it the most, while saving energy, reducing pollution, and helping to gain market penetration for new energy efficiency technologies. This is a key program which should receive the $229 million requested.

It is important to remember, Mr. Chairman, that these programs don't just save energy and money, but they all create jobs, throughout the nation, in manufacturing and service industries. Every time a homeowner insulates their home because of a building code or buys new, efficient lighting, an installer or factory worker is making a living.

While the Alliance strongly supports the President's recommendations, we are not here to say that there is no fat in the DOE energy efficiency budget or that these programs cannot be carried out more efficiently. Nor are we under any illusions that all of these increases will be appropriated. The current mood of Congress is that programs will be cut. The Budget Committee recommendations call for significant reductions in these programs for FY '96. However, efficiency programs should not be targeted or cut by any greater percentage than other energy sources, as they were is the rescission bill.

I just want to reiterate that these programs are literally the ounce of prevention worth the regulatory pound of cure for our nation's environmental protection. They are largely voluntary programs which help the market to more quickly accommodate new energy-saving technologies, and get the word out to industry and the public about the potential for cutting costs and reducing pollution.

The Alliance to Save Energy strongly believes -- as we have since our inception -- that voluntary public-private programs can lead to gains in energy efficiency at lower cost to the national economy, than can command-and-control regulations. But we recognize that while the cost to the national economy is lower, the cost to the federal taxpayer is higher. Therefore, we urge sufficient funding to make these proposed voluntary partnerships successful, so that we can avoid the need to rely solely on command-and-control regulations.

In summation, the Alliance to Save Energy strongly endorses the Administration's request for energy efficiency spending in Fiscal Year 1996. We respectfully urge the Subcommittee to fully fund the request in order to improve the environment and strengthen our national economy. Consumers and businesses across the nation -- from low-income households to multinational firms such as Schuller -- are benefiting from D.O.E.'s energy efficiency programs. If the Subcommittee increases funding for these programs, more Americans will benefit -- and benefit sooner -- from these programs.

I also respectfully urge that whatever funding decisions the Subcommittee makes you support the Department's efforts to improve and expand its programs to deploy technologies and to "make efficiency happen." Furthermore, as D.O.E. re-shapes its direction, I trust that this Subcommittee will continue its essential oversight and guidance role to ensure that the Department successfully meets its new mandate.

Thank you again, Mr. Chairman, for offering the Alliance to Save Energy the opportunity to testify before you today and for your support in past years for energy efficiency. I welcome any questions that you or the Subcommittee might have.

ALLIANCE ASSOCIATES

(As of February, 1995)

3M Company
AES Corporation
Allied Signal Inc.
American Gas Association
American Gas Cooling Center
Andersen Corporation
Armstrong International
Arthur Anderson
Association of Home Appliance Manufacturers
AT&T
BankAmerica
Battelle
Bear, Stearns & Co.
The Boeing Company
Boston Gas
British Gas
Brookhaven National Laboratory
Calmac Manufacturing Corporation
Carrier Corporation/United Technologies
CertainTeed
The Chevron Companies
Chrysler Corporation Foundation
CINergy
Commonwealth Energy System
Consolidated Natural Gas Company
Consumers Power Company
D & R International
DMC The Demand Management Company
Dewey Ballantine
Dupont-Tyvek
EcoGroup
Energy Performance Services
Englehard/ICC
Enron Corp.
Entergy Services
EUA Cogenex
Fannie Mae Foundation
GE Foundation
General Public Utilities
The GHK Company
Honeywell

Houston Lighting & Power
Hydro-Quebec
IBM
Information Technology Industry Council
Intercontinental Energy
Johnson Controls
K-Fuels
Kenetech Corporation
Knauf Fiber Glass
Landis & Gyr Powers
Lawrence Berkeley Laboratory
Libbey Owens Ford
MagneTek
Martin Marietta Corporation
Motorola
National Association of Home Builders
National Electrical Manufacturers Association
National Insulation & Abatement Contractors Association
New England Electric System
Niagara Mohawk
North American Insulation Manufacturers Association
Northeast Utilities
Northern States Power Company
NRG Barriers
Ontario Hydro
Orange and Rockland
Osram Sylvania, Inc.
Owens-Corning Fiberglas
Pacific Gas & Electric Company
PacifiCorp
Philips Lighting
Polyisocyanurate Insulation Manufacturers Association
Power Smart Inc.
Proven Alternatives
Rappahannock Investment Company
RCG/Hagler, Bailly
The Santa Fe New Mexican
Schuller International, Inc.
Science Applications International Corporation
Sensor Switch
The Society of Plastics Industry, Inc.
Solar Energy Industries Association
Southern California Edison Company
Southern California Gas Company

Texaco
Thermo Electron
USES Mfg. Inc.
Washington Gas Light Company
WaterFurnace International, Inc.
Whirlpool
Wisconsin Electric Power Company
Wisconsin Energy Corporation Foundation
Woodward-Clyde International
WMX
Xenergy

Mr. LACH. Thank you for this opportunity, Mr. Chairman.

I am going to read in the interest of time. Again, I am Larry Lach, director of government and association marketing for Schuller International. We are based in Denver and one of the world's leading manufacturers of insulation and other building materials. We have got more than 7,000 employees.

As mentioned, we have facilities in Ohio, in Georgia, California, Kansas, New Jersey, Indiana, Illinois, Texas, Arizona, and Virginia, and most of these employees owe their jobs to energy efficiency, as you can well imagine.

Energy-efficient housing results in a significant reduction of greenhouse gases and dependence on——

Mr. REGULA. You have one minute so maybe you want to summarize some of what you have there.

Mr. LACH. In the spirit of volunteerism and respect for States' rights, the 1992 Energy Policy Act authorizes DOE to provide assistance to States to update their residential and commercial codes.

Mr. REGULA. How do you feel about weatherization monies for low-income people?

Mr. LACH. We feel it is very good if it is used for weatherization and not just to pay bills for energy inefficient buildings, and this program is directed, a segment of, it a very important segment, to that.

Mr. REGULA. Does your industry sell to retrofit, as well as new?

Mr. LACH. Yes, yes, and most of that is through the building supply houses.

Mr. REGULA. Okay.

Mr. LACH. What we call our retail business.

Mr. REGULA. I am taking your time.

Mr. LACH. That is fine. I appreciate your interest.

Mr. REGULA. Are you largely just in the insulation materials?

Mr. LACH. Yes. Our company——

Mr. REGULA. I don't know if you heard some of our earlier witnesses. There were others testifying that they were consultants to industry, to the home builders and so on, to build energy-efficient construction. I assume you have worked with them.

Mr. LACH. Very closely, sir. Very closely, in fact, since DOE has announced their intention to place greater emphasis on voluntary market-driven programs to achieve their mission.

The home building industry, represented by NAHB, has acknowledged, and we work closely with them, this significant change in DOE's policy, and as a result, DOE and NAHB, and I think this is very important, they have agreed to collaborate, along with other organizations, including the alliance and the National Association of State Energy Officials to implement a national voluntary program of both new and existing homes.

Mr. NEMTZOW. If I may say, Schuller is one of companies that creates jobs at the same time they are saving energy and helping protect the environment. That is why in this tough year you have before you, Mr. Chairman, this is one of the best deals that the taxpayer can get.

Mr. LACH. What it does, since there are so many other organizations, the money that DOE would get would be very highly leveraged.

Mr. REGULA. I got it, okay. Thank you very much.

Mr. LACH. Thank you for the opportunity.

Mr. REGULA. What are your gross sales?

Mr. LACH. About $1.8 billion.

Mr. REGULA. Major company. Thank you.

Mr. LACH. We are the former Manville Corporation.

Mr. REGULA. You are not selling asbestos anymore, are you?

Mr. LACH. No, sir. That is a horrible word.

Mr. REGULA. Unless you are in the business of removing it.

Mr. LACH. Yes, and we are not.

[The information follows:]

STATEMENT OF LARRY LACH
DIRECTOR OF GOVERNMENT AND ASSOCIATION MARKETING
SCHULLER INTERNATIONAL
MEMBER OF THE ALLIANCE TO SAVE ENERGY

BEFORE THE APPROPRIATIONS INTERIOR SUBCOMMITTEE ON THE FISCAL 96 BUDGET FOR D.O.E. ENERGY EFFICIENCY PROGRAMS
MARCH 24, 1995

Thank you very much, Mr. Chairman, for the opportunity to testify today before your Subcommittee.

I am Larry Lach, the Director of Government and Association Marketing for Schuller International. Schuller International, based in Denver, is one of the world's leading manufacturers of insulation and other building materials, with more than 7000 employees. We have major facilities in Georgia, California, Kansas, New Jersey, Ohio, Indiana, Illinois, Texas, Tennessee, Arizona, and Virginia. Most of these employees owe their jobs to energy efficiency.

Energy-efficient housing results in a significant reduction of greenhouse gases and depending on foreign energy sources and just as importantly -- comfortable and affordable housing. Energy efficiency is the largest controllable component of the family's housing costs. However, home owners still do not always choose optimal levels of energy efficiency. That's why Schuller is very supportive of the work Congress and DOE have done to encourage the construction of energy-efficient housing.

In the spirit of volunteerism and respect for State's rights, the 1992 Energy Policy Act authorizes DOE to provide technical assistance to States considering updating their residential and commercial building codes to what's known as the "Model Energy Code". The Administration has asked for $24.6 million for this technical assistance. There are no requirements, no regulations, no mandates.

Recently, DOE announced their intention to place greater emphasis on voluntary market-driven approaches to achieve their mission of reducing home energy consumption.

The home building industry has acknowledged this significant change in DOE policy. By resolution, the National Association of Home Builders have expressed its support for voluntary energy-efficiency programs. As a result of DOE's new policy, DOE and NAHB have agreed to collaborate -- along with other organizations including the Alliance to Save Energy and the National Association of State Energy Officials -- to implement a national voluntary program for both new and existing houses. The program is called "Energy Value in Housing" or EVH. Its purpose is to increase market and public perception by providing educational and technical assistance. The funds requested by DOE will enable them to participate in the EVH program. These funds will be greatly leveraged by the other participating organizations. DOE's participation and endorsement of the program is vital to its success.

Thank you again Mr. Chairman, for the opportunity for Schuller International to testify today. I would be happy to answer any questions you might have.

Friday, March 24, 1995.

DOE: ENERGY EFFICIENCY

WITNESS

NANCY HIRSH, DIRECTOR, ENERGY CONSERVATION COALITION

Ms. Hirsh. Good afternoon, Mr. Chairman. My name is Nancy Hirsh. I am with the Energy Conservation Coalition, a coalition of 20 national environmental, consumer, religious, and scientific organizations.

Mr. Regula. You are a nonprofit too?

Ms. Hirsh. Yes.

Mr. Regula. Sounds like my farm.

Ms. Hirsh. It is a struggle. And we are here to support the Department of Energy's fiscal year 1996 request for energy-efficiency R&D, commercialization and State grants programs.

We recognize the importance of controlling government spending, ensuring accountability. You have initiated an assessment of the role of government in meeting economic and social needs. We think that is important and we believe that continued Federal investment in energy-efficiency programs is consistent with cost-effective government and a sound economy and a healthy environment.

The Federal Government has an important role with research, development and commercialization because there are lots of market barriers that prevent energy-efficiency investments. Tough shareholder requirements, risky, long-term R&D investments, difficult for companies to commercialize technologies that are expensive, consumers often don't have the resources or the information to make those investments. Many of DOE's programs, specific end-use sector programs help to overcome a lot of those market barriers and provide that kind of technical and financial assistance.

Earlier this month, the National Consumer Law Center issued a report that said that for the 25 million low-income Americans, there still is an energy crisis. These low-income households lack the technical and financial resources to make investments that can reduce their burden, their energy burden. We think the government still has a responsibility to those most in need to meet their energy needs.

The weatherization program reduces the energy bill for about 225,000 low-income households a year. It leverages an additional $200 million through private, State and other local agencies to supplement Federal funds, produces jobs in low-income communities, in related supply industries. It improves living conditions in often rental housing.

Full funding for weatherization is essential, particularly given the impending cuts to the LIHEAP program, which transfers about $150 million a year into weatherization. We think that weatherization has been proven effective in meeting the long-term solutions to low-income energy needs.

We also think there are two other DOE programs that we think are worth mentioning. One is the Federal Energy Management Program, which has already been mentioned, but with a $9 billion a year energy bill, the FEMP program is critical in reducing those energy costs for the Federal Government and in helping Federal agencies get over the barriers that they face in making those kinds of investments.

The third program is the Integrated Resource Planning Program within the Office of Utility Technologies, and that program we think is critical, given the tremendous amount of utility restructuring debate that is going on. DOE has been critical in providing technical and financial assistance to regulators and utilities, in assessing long-range planning. As the utility restructuring debate goes on, at both the State and national level, DOE has a critical role in that debate and should be active, and we hope that the $9 million requested is funded.

Mr. REGULA. Very well. Thank you.

[The information follows:]

ENERGY CONSERVATION COALITION
6930 CARROLL AVE, 6TH FL TAKOMA PARK, MD 20912

Hearing on the Department of Energy's Fiscal Year 1996 Budget on Conservation

Testimony of Nancy Hirsh, Director
Energy Conservation Coalition

Appropriations Committee
Interior Subcommittee
U.S. House of Representatives

March 24, 1995

Mr. Chairman, members of the Subcommittee, thank you for the opportunity to submit the Energy Conservation Coalition's views on the Department of Energy's proposed Fiscal Year 1996 Budget for Energy Efficiency. The Energy Conservation Coalition (ECC) was founded in 1981 by 20 national environmental, consumer, religious, and scientific organizations to promote cost-effective investments and policies in support of energy efficiency, conservation, and renewable energy.

For the past eight years the Coalition has advocated increases in DOE's budget for energy efficiency research, development, and deployment activities. We support the President's Fiscal Year 1996 budget request for energy efficiency programs because it continues the course toward developing an energy policy that is socially just and ecologically sustainable. We recognize the importance of controlling government spending and ensuring accountability, and we believe that continued investment in energy efficiency programs is consistent with cost-effective government and long-term societal goals of a healthy environment and sound economy.

Energy Efficiency Improves the Economy and Protects the Environment

Improving energy efficiency leads to more jobs, saves consumers money by reducing their energy bills, and cuts emissions as the demand for new power plants is reduced. According to the American Council for an Energy-Efficient Economy, if all cost-effective energy efficiency investments are made in America's buildings, factories, and vehicles, there could be a net increase of 1.1 million jobs within 15 to 20 years, which increases personal and business income during this time period.

Energy efficiency stimulates economic growth while keeping energy consumption to a more sustainable level. It helps U.S. industries stay competitive in the fast-paced world of new technology development and reduces the trade deficit.

A Project of Environmental Action Foundation (301) 891-1104 Fax (301) 891-2218

Energy efficiency improvements are among the most cost-effective means to pollution prevention. For example, improving the efficiency of industrial processing reduces the emissions and pollution from a facility, thereby reducing energy costs and preventing pollution.

Federal Government Plays a Central Role in Promoting Energy Efficiency

Government involvement in energy efficiency R&D and commericalization efforts is critical since many market barriers limit private-sector investment in long-term R&D and in commercialization.

- Consumers do not have complete information about the products they buy, nor do they have the ability to foresee the potential for new, more efficient products.
- Long-term R&D is often high risk, the pressure to show high shareholder returns is very strong, and the need to cut costs prevents the private sector from tying up capital in R&D.
- Product development and commercialization is often too costly and complex for many small-to-medium-size companies.
- Many consumers lack the resources to make investments in energy efficiency improvements despite the long-run cost savings.
- Current energy prices send market signals that investments in energy efficient technology may not be cost-effective because they do not reflect the many environmental and social costs associated with energy production and use.

DOE's broad array of programs work to overcome these market barriers. Successful programs include, financing efficiency investments in low-income households and state governments, developing efficiency standards, codes, and labeling programs for appliances, equipment and buildings, targeting industry technology transfer activities, researching cutting-edge technologies, and promoting information resources for both the public and industry.

DOE's energy efficiency programs advance innovative and cost-effective technologies, create jobs, help U.S. companies compete in the global marketplace, and reduce polluting emissions. DOE's programs leverage private and state resources into R&D projects and commercialization efforts that might otherwise have languished due to lack of capital rather than lack of private-sector interest. DOE's programs assist industry with trouble-shooting to solve technical and marketing problems that may prevent a technology from making it into the marketplace in a timely manner.

Specific Energy Efficiency Programs

While ECC supports the broad array of programs within the Office of Energy Efficiency and Renewable Energy, we would like to single out three specific programs that we feel exemplify the strategic importance of energy efficiency and the critical role of the Department of Energy in furthering sustainable energy policy.

Weatherization Assistance Program

Last month, the National Consumer Law Center released a report, *Energy and the Poor: The Crisis Continues*, which shows that while the energy crisis may be over for some, it is certainly not for more than 25 million low-income Americans. NCLC's report showed that household energy costs for the working poor are around 12 percent of their income -- compared to only 4 percent for a family with an average income.

Through the Weatherization Assistance Program (WAP), about 225,000 low-income homes are weatherized annually, reducing the energy burden on those households. A $229 million investment for FY'96, for a program that is proven effective at reducing energy costs for low-income families, creating jobs in low-income communities and improving the living conditions of urban and rural poor, is a wise and cost-effective use of government resources. The Weatherization program has passed a rigorous cost-benefit evaluation by the Oak Ridge National Lab (ORNL) that showed, much to its detractors' surprise, that WAP not only saves more than it costs, it also out-performs most utility-sponsored weatherization programs. Federal dollars serve as the catalyst for leveraging an additional $200 million each year from private, state and local agencies to provide long-term solutions to reducing energy costs. The Oak Ridge study found that in 1989, over 13,000 jobs were created in communities served by the weatherization program and over 6,000 jobs in indirect employment in supply and support industries. Not bad for the $160 million investment in FY'89.

Full funding for DOE's Weatherization program is even more critical as Congress considers deep cuts to the Low-Income Home Energy Assistance Program. States transfer on average over 10 percent of their LIHEAP dollars to supplement the weatherization program. The proposed Congressional cuts to LIHEAP will reduce overall funds available for weatherization by almost $150 million.

Federal Energy Management Program

The federal government spends approximately $9 billion a year on energy costs -- to operate facilities, vehicles and buildings. The Energy Policy Act of 1992 expanded the federal government's efforts to become more energy efficient. The federal government is perfectly positioned to be a leader in demonstrating new cost-effective technology and reaping the benefits of reduced energy costs. The problem is that federal agencies lack interest and the capital for making energy efficiency investments in their facilities. DOE's Federal Energy Management Program (FEMP) has begun to make strides in addressing the number of barriers hindering federal agencies from tackling their high energy bills. FEMP provides critical technical assistance and training to agency energy managers, conducts energy audits, helps negotiate financing and identify appropriate new technologies. The Federal Energy Efficiency Fund and new performance contracting arrangements have created the economic incentives needed by agency energy managers to implement the energy efficiency investment strategies recommended by FEMP on-site audits. DOE estimates that an aggressive Federal energy management program could save over $400 million a year by the year 2000. ECC supports the Administration's request of $54 million for the FEMP.

Office of Utility Technologies

The Integrated Resource Planning (IRP) program long has been a model program for DOE because it successfully provides technical assistance and model analysis to state regulators, utilities and consumer and environmental advocates as they develop long-range integrated resource planning for their states. The Energy Policy Act of 1992 has helped spur federal and state regulators to examine broad changes to electric utility regulation. The manner and form of these changes to the electric utility industry is of national significance, DOE should be an active participant in this ongoing debate. The types of technical information, model development and strategic research supported by DOE's Integrated Resource Planning program will be critical in the coming year as restructuring of the electric utility industry raises many opportunities and challenges. The $9.9 million requested for the IRP program will help enhance the technical and analytic capabilities of state regulators, legislators, utility staff, and public interest advocates as they work to better understand the impacts of utility industry restructuring on the economy, consumers, and the environment.

Conclusions

The Energy Conservation Coalition supports a thoughtful assessment of the role of government in meeting economic, social and environmental goals. DOE's energy efficiency programs develop advanced technologies that support thousands of jobs, strengthen U.S. competitiveness, and reduce reliance on polluting fossil fuels and nuclear energy. Congressional efforts to streamline government and improve efficiency must be backed by economic justification and considered in the context of strategic long-term societal goals. Budget cutting without regard for program effectiveness does not improve efficiency or ensure a more accountable government.

Thank you for the opportunity to present the views of the Energy Conservation Coalition before this subcommittee.

FRIDAY, MARCH 24, 1995.

INSTITUTE OF MUSEUM SERVICES

NATIONAL ENDOWMENT FOR THE HUMANITIES

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

THOMAS LAINHOFF, DIRECTOR OF THE GUNSTON HALL PLANTATION, AMERICAN ASSOCIATION OF MUSEUMS

Mr. REGULA. American Association of Museums, Thomas Lainhoff.

Mr. LAINHOFF. Good afternoon, Mr. Chairman. My name is Tom Lainhoff and I am the director of Gunston Hall, the colonial plantation of George Mason, Father of the Bill of Rights. I am speaking today on behalf of the American Association of Museums, which represents the Nation's 8,000 museums of art, history, science and natural——

Mr. REGULA. Is Gunston Hall State financed or private?

Mr. LAINHOFF. It is a State agency museum. About half of our funding comes from the State.

Mr. REGULA. The other half is?

Mr. LAINHOFF. It is earned income, gifts and grants, contributions that come——

Mr. REGULA. You have land that you can rent?

Mr. LAINHOFF. No.

Mr. REGULA. It is just admission fees?

Mr. LAINHOFF. Admission fees, shop sales.

Mr. REGULA. Got it. Okay.

Mr. LAINHOFF. Although I am here to testify in support of continued Federal funding for IMS, National Endowment for the Humanities and the National Endowment for the Arts, I would like to make it clear at the onset that I am not here to defend any institutional turf.

Gunston Hall has had very good fortune for half a century to enjoy strong financial support both from the Commonwealth and from our private benefactors throughout the United States. As a consequence, we have never received any substantial amount of Federal support and we are in no way dependent on such support for the accomplishment of our mission of education to the public about George Mason's significance.

I am testifying instead because of a professional concern about the adverse impact that substantial reduction or elimination of Federal support for the arts and humanities would have.

On a pragmatic level, the relatively small amount of Federal money devoted to the Federal cultural agencies acts as a catalyst to increase support at the State and local level, foundations, corporations and individual patrons. Federal support is a keystone in arts, constituting arts and humanities funding.

If the keystone is removed, the supporting elements, State, local and private funding, may be greatly weakened even if they do not collapse. Therefore, it is the position and function of Federal funding in the overall structure that are the important factors, not the mere amount of such funds.

Moreover, I would contend that aside from the understandable desire to reduce the size and cost of the U.S. Government, much of the impetus to reduce funding from the arts and humanities stems from a basic lack of understanding for how most of these funds are used.

While a great deal has been written about Robert Mapplethorpe, Andres Serrano and the Enola Gay exhibit, far less is written about that underscores the fact that most of what American cultural institutions do is as mainstream as apple pie and the 4th of July. That which lacks controversy lacks attention, almost by by definition.

Yet the vast majority of the projects funded or assisted by the Federal cultural agencies are just such noncontroversial projects. They are important and they are valuable and they are tremendously exciting to us and to our visitors. Most of them, however, are not the type of thing that will excite the attention of the national media.

Are these projects less significant because they don't appear on the cover of the Washington Post or the New York Times? I think not.

The IMS, NEH and NEA help us to preserve and to understand our Nation's history for the next generation. What is often overlooked at in this debate, however, is the degree to which these agencies bring that history into our lives and the lives of our children every day.

Without the support of these agencies, museums would provide less, charge more, and close more often. Critics frequently charge that the Federal agencies cater to an elite audience. Nothing could be further from the truth. It is the Federal agencies which allow access to those who could not or would not otherwise visit historic sites, museums and zoos. Elitism would lay in the elimination of funding for these agencies. Without Federal assistance, only the elite would be able to afford to participate in the arts and humanities.

I recently talked to a colleague who directs a museum in Mr. Nethercutt's district of Washington State. This year, IMS grants at this museum paid for an education coordinator to organize workshops for children and seniors and to construct outreach programs for Native American children on nearby reservations. At the same institution, NEH grants fund exhibits that over one-half of the local population came to see.

The vague concept of privatizing the Federal cultural agencies would have a very real impact on Washington State. This museum and others like it would be casualties, as would communities throughout the country.

At the same time, the desire to reduce the size and cost of government is not only understandable but also pervasive. It cuts across all levels of government from the national to the local.

Over the last nine months, the Commonwealth of Virginia has considered and rejected a variety of proposals that have eliminated all State support for the arts and humanities and for non-State museums and would have greatly eliminated or reduced State support for State-owned museums.

Currently, we are looking instead at broad-based but modest reductions. If Federal funding is to be concurrently reduced or eliminated, the negative effect of such cutbacks will only be multiplied.

Education is the tie that binds America's museums together and the most important people that we educate are our children.

Mr. REGULA. I think we are about out of time here. I understand your message, though.

Mr. LAINHOFF. Thank you.

Mr. REGULA. You are very supportive of those functions. You understand there is an authorizing problem?

Mr. LAINHOFF. Yes, I do.

Mr. REGULA. And I hope you will contact the Members that you know on the authorizing committee.

Mr. LAINHOFF. Okay, we will do that. Thank you for your time.

Mr. REGULA. Thank you.

[The information follows:]

American
Association
of
Museums

STATEMENT OF

THOMAS A. LAINHOFF, DIRECTOR
GUNSTON HALL PLANTATION

on behalf of
THE AMERICAN ASSOCIATION OF MUSEUMS

United States House of Representatives
Committee on Appropriations
Subcommittee on Interior

March 24, 1995

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Washington DC
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Good afternoon. My name is Tom Lainhoff and I am the Director of Gunston Hall, the colonial plantation of George Mason, Father of the Bill of Rights. I am speaking today on behalf of the American Association of Museums, which represents the nation's 8,000 museums of art, history, science, and natural history, as well as zoos, botanical gardens, children's museums, specialty museums, and many others. I would like to ask that my written statement be placed in the record.

Although I am here to testify in support of continued federal funding for the Institute of Museum Services (IMS), the National Endowment for the Humanities (NEH), and the National Endowment for the Arts (NEA), I should like to make it clear at the outset that I am not here to defend any personal institutional turf. Gunston Hall Plantation, located in Fairfax County, Virginia, has had the good fortune for almost half a century to enjoy strong financial support both from the Commonwealth of Virginia and from our private patrons throughout the United States. As a consequence we have never received any substantial amount of federal support and we are in no way dependent on such support for the accomplishment of our mission "to preserve, interpret, and promote Gunston Hall Plantation in order to educate the public about the international significance of George Mason for his unique contribution to the universal cause of human rights."

I am testifying, instead, because of a professional concern about the adverse impact that a substantial reduction or elimination of federal support for the arts and humanities would have. On a pragmatic level, the relatively small amount of federal money devoted to the federal cultural agencies acts as a catalyst to increase support at the state and local level, from foundations, corporations, and individual patrons. Federal support is the keystone in an arch constituting arts and humanities funding. If the keystone is removed, the supporting elements -- state, local, and private funding -- may be greatly weakened even if they do not collapse. The position and function of federal funding in the general structure are the important factors, rather than the mere amount of funding.

Moreover, I would contend that, aside from the understandable desire to reduce the size and cost of the U.S. government, much of the impetus to reduce funding for the arts and humanities stems from a lack of understanding of how most of these funds are used. While a great deal has been written about Robert Mapplethorpe, Andres Serrano, and the *Enola Gay* exhibit, far less is written that underscores the fact that most of what American cultural institutions do is as mainstream as apple pie and the Fourth of July. That which lacks controversy lacks attention, almost by definition.

Yet the vast majority of the projects funded or assisted by the federal cultural agencies are just such non-controversial projects. They are important and they are valuable and they are tremendously exciting to those of us in the profession and to our visitors. Most of the projects are not, however, the type of things which will excite the attention of the national media. Are projects that catalogue and publish the writings of our Founding Fathers less valuable because they are less controversial? Are federally-assisted projects to help install new heating, ventilation, and air conditioning (HVAC) systems in Thomas Jefferson's Monticello or in the Governor's Palace at Colonial Williamsburg less significant because they do not make the cover of the *Washington Post* or the *New York Times*? I think not.

The IMS, NEH, and NEA help us to preserve and understand our nation's history for the next generation. What is often overlooked in this debate, however, is the degree to which these agencies bring that history into our lives and the lives of our children every day. Without the IMS, NEH, and NEA, museums would have to provide less, charge more, and close often. Critics frequently charge that the federal agencies cater to an elite audience. Nothing could be further from the truth; it is the federal agencies which allow access for those who could not otherwise visit natural history and art museums, historical sites, zoos, and other museums. Elitism lays with the *elimination* of the IMS, NEH, or NEA: without federal assistance, only the elite would be able to afford to participate in the arts and humanities.

I recently heard from a colleague who directs a museum in Mr. Nethercutt's district in Washington state. This year, IMS grants at this museum paid for a museum education coordinator to organize workshops for children and seniors and to reach out to Native American schools on nearby reservations. At the same institution, NEH grants helped fund an exhibit which over one-half of the population came to see. The state provides enough money to pay the salaries for the museum's permanent staff of four, but foundation and corporate money is scarce. IMS grants account for 50 to 60 percent of this rural museum's everyday operating costs after staff salaries. The vague concept of "privatizing" the federal cultural agencies would have a very real impact in Washington state: this museum and others like it would be the casualties, and your communities would suffer.

At the same time, the desire to reduce the size and cost of government is not only understandable but also pervasive -- it cuts across all levels of government, from the national to the local. Over the course of the past nine months the Commonwealth of Virginia has considered, and rejected, a variety of proposals that would have eliminated all state support for the arts and humanities, and for non-state museums, and would have eliminated or greatly reduced state support for state-owned museums. Currently we are looking instead at broad-based but modest reductions. However, the debate is far from over at the state level and few, if any, of us in the museum profession in Virginia expect that the Commonwealth will be able to sustain the level of funding that we have counted upon in the past. If federal funding is to be concurrently reduced or eliminated, the negative effects of such cut-backs will only be multiplied. As many states look vigorously at budget reductions, a signal from the federal government that providing broad access to cultural institutions is no longer a national priority would have a powerful negative effect at the state and local levels.

Education is the tie that binds America's museums together and the most important people we educate are the children of this nation. Federal funding for the arts and humanities helps make it possible for us to achieve our educational mission in many important ways. It is said that those who cannot remember their past are condemned to repeat it. It is our job to help ensure the preservation of our nation's heritage so that generations yet unborn may learn from that heritage. The federal government has been an invaluable partner in that process for many years, and for that I thank you. The continuation of that partnership will be a deciding factor in how well we are able to accomplish the mission we have undertaken. I hope that it will not be said in the future that ours was the generation that turned its back on the past.

Thank you.

FRIDAY, MARCH 24, 1995.

DOE: ENERGY WEATHERIZATION

WITNESS

JEFFREY BROWN, DIRECTOR, RESIDENTIAL ENERGY PROGRAMS, ON BEHALF OF THE NATIONAL ASSOCIATION FOR STATE COMMUNITY SERVICE PROGRAMS

Mr. REGULA. National Association for State Community Services Programs, Jeff Brown.

So you are replacing our chief from Ohio?

Mr. BROWN. Correct. She had a significant conflict.

Mr. REGULA. Are you from Ohio?

Mr. BROWN. No. I am from North Carolina.

Mr. REGULA. That is the way it goes.

Mr. BROWN. Mr. Chairman, my name is Jeff Brown and I am residential energy conservation programs director in the North Carolina energy division. I am also a member of the National Association of State Community Service Programs, which represents State weatherization directors.

I want to recognize and thank the subcommittee for its bipartisan support of the weatherization assistance program and I believe we have justified your confidence. In a time of great skepticism about the effectiveness of public programs, weatherization is an example of a Federal-State community partnership that returns more value than taxpayers invest and delivers measurable and long-lasting results.

Investment is a key word that describes Federal dollars spent in weatherization. A 1989 evaluation concluded that every dollar invested in weatherization assistance program, that investment returned $1.72. In North Carolina, that one dollar returned $1.95 since 1989. New technologies and improvements have increased our cost-effectiveness. In North Carolina, for every dollar invested in 1994 there was a return of $2.66.

Mr. REGULA. In savings?

Mr. BROWN. Yes, in energy savings. We believe that a $3 return on that one dollar investment is an obtainable goal nationally in the next five years.

That same evaluation showed that low-income families save 18 percent on their energy bills or $150 a year. In my State we achieved savings of 27 percent, representing annual fuel savings of $292. These are annual savings over the life of the measures installed.

Studies indicate that pollutants, including carbon emissions, are reduced by weatherization activity. One year's activity can reduce carbon emissions by more than 60,000 metric tons per year.

This program also creates and sustains jobs. Fifty-two people are directly employed and 22 other positions are supported for every million dollars invested in this program. Funding at the President's 1996 request would produce over 16,000 weatherized homes, support 17,000 jobs and save the equivalent of 400,000 barrels of oil a year.

The weatherization network is also a leader in developing conservation technologies. We have pioneered mechanisms for the identification and resolution of problems relating to home, health and safety. In North Carolina, one in 10 homes eligible for weatherization have significant carbon monoxide problems, three times as many homes have significant levels of nitrogen dioxide. Both of these gases are very dangerous. Carbon monoxide has been called the silent killer, nitrogen dioxide can cause long-term chronic illness. These are serious health and safety issues. Weatherization has the ability and the know-how to remedy these situations.

Mr. Chairman, in 1989, you appropriated funds to put about 12 million barrels of oil in the Strategic Petroleum Reserve. Weatherization investments that year will save the equivalent amount of energy without using expensive storage facilities and will employ twice as many workers per dollar.

The President has requested $229 million for this program. We desperately need that funding. This association supports his request and supports the funding increases for the institutional conservation program and the State Energy Conservation Program.

However, increases in weatherization should be proportionate to increases in other energy programs. Funding should follow performance.

In past years, we have advocated for funding levels of $350 million. And we are grateful that the President's request is slowly moving towards that goal.

We are certainly concerned over other funding problems. The elimination of LIHEAP would be devastating to an infrastructure that successfully delivers weatherization services.

Above all, we should not forget that weatherization has a measurable positive impact on people and families. We can contract the return on our investment for thousands of American families. Weatherization will cost effectively provide the means to stay in their homes, provide health and safety risk problem solving and—where they won't have to answer the question, "Will we heat or eat this week?"

We know that there are many competing demands for funds in this committee. We hope you will not consider reducing this request unless you find a program that exceeds weatherization's ability to save Btu, reduce emissions, create jobs, introduce new technologies to the consumers, and provide a clear payback of public investment in the near future. If judged on these criteria, we feel confident that the Weatherization Assistance Program will match any competing proposal for tax dollars.

Weatherization is a cost-effective investment, from an energy perspective, an economic perspective and a social perspective. Weatherization has a proven track record of significant, long-term, measurable benefits. This is a program of which the public and Congress can be proud.

[The information follows:]

Testimony

Jeffrey Brown
Director
Residential Energy Programs
Energy Division
Department of Commerce
North Carolina
on behalf of

The National Association for State
Community Services Programs

at the

Hearing on Appropriations
for
Interior and Related Agencies

before the

Subcommittee on the Interior and Related Agencies
of the
House Appropriations Committee

March 24, 1995

Mr. Chairman and members of the subcommittee, my name is Jeff Brown, I am the Director of Residential Energy in the Energy Division of North Carolina's Department of Commerce. I have responsibility for the management of the Weatherization Assistance Program. I am a member of the National Association for State Community Services Programs (NASCSP), the national organization that represents the state directors of the Weatherization Assistance Program. I thank you for the opportunity to testify today on behalf of NASCSP and the North Carolina Program.

I also want to recognize and thank this subcommittee for the bipartisan support you have provided for the Weatherization Assistance Program. We think that we have justified your confidence. **In a time of great skepticism about the effectiveness of public programs, Weatherization is an example of a federal/state/community partnership that returns more value than the taxpayer invests, and delivers measurable and long-lasting results.**

Investment is the key word that describes federal dollars spent in the weatherization program. When the 1989 Weatherization Assistance Program was evaluated by the Oak Ridge National Laboratory (ORNL), Oak Ridge demonstrated that for every $1. invested in weatherization the program paid back $1.72 in energy savings. In North Carolina, the return on that investment was $1.95. Since 1989, the program has been using new audits that identify the most cost effective measures to install. **We are confident that nationally the savings are now over two dollars for every one dollar invested, and in the next five years, the return on every dollar invested will be three.** For example, in North Carolina, the return on one dollar invested in FY 1994 was two dollars and sixty-six cents. Our goals are attainable.

Based on the ORNL evaluation we know that Weatherization, in 1989, saved the average low-income family 18% on their energy bill, or just over $150. per year. But many states saved much more five years ago and all save more today. **In North Carolina we have demonstrated savings of 27% which represents a savings of $292. toward a low-income household's fuel bill. The savings continue to accumulate over the life of the weatherization investment.** It should be noted that North Carolina is not an anomaly, a number of states have comparable performances.

One measure of achievement of this program that may have escaped this subcommittee's notice is the fact that it reduces carbon emissions and significantly helps in the achievement of climate change treaty obligations. **Studies by ORNL indicate that emissions are reduced by upwards of 60,000 metric tons per year for each year's weatherized units.** Weatherization is as least as effective as some other programs addressing climate change.

The Weatherization Assistance Program creates and sustains jobs as well as reduces emissions. **For each million dollars invested in the program, 52 people are directly employed for one year and an additional 22 jobs are indirectly supported.** More than half the direct hires are private sector contractor jobs. All 22 indirect jobs are in retail, manufacturing and service.

If you fund the program at the President's FY 1996 requested level of $229 million, these funds will produce over 16,000 weatherized homes nationwide, will support 17,000 jobs and will save 2 trillion British Thermal Units (Btus) of energy in the first year.

The Weatherization network has been the leader in developing technologies that are now being used in the private sector for energy conservation. Major examples of this technology transfer are the use of computerized audits, investment protocols, blower-doors for the identification of air sealing, the use of high density cellulose and the use of specialized instrumentation to determine the results of the weatherization process. Many of these technologies have been adopted by utility programs as they develop their own energy conservation programs.

State WAP programs have also pioneered mechanisms for the identification and resolution of problems relating to home health and safety. In North Carolina, a study funded by DOE indicated that, on average, there were significant carbon monoxide (CO) concerns in one in ten houses eligible for weatherization. There were significant concerns with regard to Nitrogen Dioxide (NO_2); in some instances it was found three times as often as CO. Although nitrogen dioxide will not kill residents, its presence in a home has a serious effect on the health of the inhabitants. These are serious health and safety risks to our citizens that Weatherization has the ability and know how to remedy. North Carolina will successfully remedy hundreds of these situations this year through it's Heating Appliance Repair and Replacement Program.

A conclusion reported in *Weatherization Works: A Report of the National Weatherization Evaluation* authored by Brown and Berry of ORNL and Kinney of Synertech Systems Corporation, stated that, "Weatherization is a sound public program that has advanced technically in spite of modest funding over the past decade. It has concrete positive consequences for housing, neighborhoods, jobs, the environment, the payment of utility bills and — the economic well-being and safety of the low-income people it serves."

Mr. Chairman, in 1989, the year ORNL used for this WAP study, you appropriated funds to put approximately 12 million barrels of oil in the Strategic Petroleum Reserve. **ORNL found that weatherization investments in 1989 will save the Btu equivalent of 12 million barrels over the lifetime of the measures installed. WAP put the same number of Btu into the economy without using expensive storage facilities and employed twice as many workers per dollar.**

The President has requested $229 million for the Weatherization Assistance Program in his budget. NASCSP supports his request for this program and the funding increases for the Institutional Conservation Program (ICP) and the State Energy Conservation Program (SECP). However, we believe increases in Weatherization should be proportionately the same as those for other efficiency programs. In fact, in these times funding should follow energy performance.

In past years NASCSP has advocated for a funding level of $350 million, and is gratified that the President's request is slowly moving toward that goal. However, there are two other funding concerns for Weatherization program directors. The petroleum violation escrow (PVE) funds are depleted. In its rescission of FY 1995 funds, the House passed a bill which rescinds the advanced FY 1996 funds for LIHEAP. The House Budget Committee has also included termination of LIHEAP as part of the savings package it has put together to offset the middle class tax cut.

The effect of the elimination of LIHEAP will be devastating to a well-established infrastructure which delivers Weatherization services, and to low-income persons who have used it to help pay their energy bills. Approximately $215 million in LIHEAP funds are being used in forty-four states for energy conservation activities. The program through which most of these funds has been utilized is the Department of Energy's Low-Income Weatherization Assistance Program. These funds represent approximately 40% of the funds that are currently being used nationwide to weatherize low-income homes. **This is a time when one committee must know what the impact is of another committee's action. This Committee cannot allow this locally based infrastructure (which has taken years to develop) to fall victim to uninformed budget cutting.**

North Carolina's Weatherization program currently receives about 26% of its funding from LIHEAP and 39% from DOE. The balance comes from oil overcharge funds. We have also been active in trying to obtain utility investments in low-income conservation. And although studies point out the opportunity for cost-effective private/public opportunities, for the most part that has not happened. In fact, outside of California, utility investments in this program are less than $100 million annually. These investments can only be found in fourteen states. Utilities have not been, and cannot be a substitute for federal funding for this program. With industry deregulation, we expect even less utility funding for this program.

Above all, we should not forget that the Weatherization Assistance Program has a "measurable" positive impact on people and families. I realize measurable benefit and government expenditures are seldom used in the same breath, but in this case it is absolutely appropriate. For thousands of American families Weatherization Assistance will cost-effectively provide the means for them to stay in their homes, reduce their health and safety risks and eliminate the need to ask the question, "Do we heat or eat this week?"

We know that there are many competing demands for funds in this committee. We hope you will not consider reducing this request unless you find a program that exceeds Weatherization's ability to save Btu, reduce emissions, create jobs, introduce new technologies to the consumers and provide a clear payback of public investment in the near future. If judged on these criteria, we feel confident that the Weatherization Assistance Program will match any competing proposal for tax dollars. Weatherization is a cost-effective investment, from an energy perspective, an economic perspective and a social perspective. Weatherization has a proven track record of significant, long-term, measurable benefits. This is a program of which the public and Congress can be proud.

Mr. REGULA. Thank you.

Does it get cold in North Carolina?

Mr. BROWN. Yes, it does. It was 23 degrees, and 17 degrees.

Mr. REGULA. Many of our Ohio folks go down that way to retire.

FRIDAY, MARCH 24, 1995.

DOE: NAVAL PETROLEUM RESERVE–ELK HILLS

WITNESS

MICHAEL STAY, PROGRAM DIRECTOR, CHEVRON

Mr. REGULA. Okay, Michael Stay, Chevron, your statement will be made a part of the record and will you summarize.

Mr. STAY. Mr. Chairman, my name is Mike Stay. I am program director for Chevron U.S. Production Company, the Elk Hills Profit Center.

Mr. REGULA. So you are on the ground back there.

Mr. STAY. I am actually back here temporarily but I have been out there. I am here to talk about the DOE budget for the Naval Petroleum Reserve number one at Elk Hills, California, which proposed three items. First, to operate in 1996 in a caretaker status at a 50 percent reduction from 95's budget. Secondly, to form a government corporation for a year or two while they get ready to; then the third point, sell the reserve, sell the government's 78 percent.

Mr. REGULA. You are opposed to all three?

Mr. STAY. No, sir, we are not. We are very much in favor of the sale. We believe that that is in the best interest of the taxpayer. That is the way you are going to get the best commercial approach.

Mr. REGULA. Sale of the entire field?

Mr. STAY. Sale of the government's share, yes, sir.

Mr. REGULA. At an auction?

Mr. STAY. To the highest bidder.

With regard to forming a government corporation to facilitate the sale, we think that is a costly and unnecessary step, whether it be for one year, three years or five years. It doesn't make any sense at all. You can sell this without that.

With regard to the caretaker status budget, we have serious concerns and we think the government should also have serious concerns about this budget. The budget proposes $78.8 million in newly appropriated funds, which is about an $80 million reduction from 1995. This budget request will actually lose money for the taxpayer because it will not provide adequate funding.

Mr. REGULA. Cripple production?

Mr. STAY. To produce the reserves, to prepare the wells, to invest the capital that is needed to sustain production over the next few years.

Over the next four years, this kind of budget reduction of $80 million, save $80 million on one hand, will cost $200- to $300 million in lost revenue.

Mr. REGULA. If the U.S. puts their share on the block, will Chevron join and put theirs on the block with it?

Mr. STAY. We would not anticipate selling our share.

Mr. REGULA. Why not? It is a great thing for the U.S., you said. It seems if it is good for the U.S., it is good for Chevron.

Mr. STAY. We believe that selling the government's share would bring the biggest return to the taxpayer.

Mr. REGULA. Won't that bring you the biggest return also?

Mr. STAY. No. We believe from Chevron's standpoint that if this field were operated in a commercial manner, that would be the best thing for Chevron.

Mr. REGULA. What if the whole field were operated in a commercial manner? If it is the best for Chevron, wouldn't it be the best for the U.S.?

Mr. STAY. If it were operated in a pure commercial way, we believe it would.

Mr. REGULA. Maybe that is the answer.

Mr. STAY. We don't believe that can be done under a corporatization scenario but we do believe that having it operated by an owner, which is consistent with the proposal we made almost two years ago to the DOE to have Chevron operate it, is the best way.

Mr. REGULA. Don't you operate it now?

Mr. STAY. No. It is contracted out to Bechtel Petroleum Operators, Incorporated.

Mr. REGULA. That is right. You are right.

You maintain the answer is to have a more efficient operation.

Mr. STAY. If you had truly the most efficient operation in a commercial way, that would be the best answer.

Mr. REGULA. But provide long term the best return on the investment, wouldn't it?

Mr. STAY. We believe that it would be competitive with a sale. You could also—in terms of a net present return to the government, we believe that the bidding on this would be very heated because it is a large asset and it would be desirable——

Mr. REGULA. If you put yours in the package, it will be even more heated.

Mr. STAY. Not necessarily. Selling 78 percent of this asset is in itself attractive and anyone that is going to bid on this is going to be a——

Mr. REGULA. But it has got to be more attractive than 100 percent.

Mr. STAY. Possibly, but we would not anticipate selling our share.

Mr. REGULA. I think that you answered your own question. Thank you very much.

[The information follows:]

INTRODUCTION

Mr. Chairman and members of the Subcommittee, my name is Mike Stay. I am a Program Director for Chevron U.S.A. Production Company's Elk Hills Profit Center which is part of our Western Business Unit, headquartered in Bakersfield, California. Thank you for the opportunity to appear before you today to provide input on the Department of Energy's FY 1996 Budget for the Naval Petroleum Reserves 1 and 2 (NPR-1 and 2) at Elk Hills, California. This budget proposes the Reserves to be operated in a "caretaker" status utilizing $78.8 million in newly appropriated funds; to form a government corporatize in FY1996; and to sell or lease the Government's interest in the Reserves in FY 1997.

Our primary interest, as joint owner of Naval Petroleum Reserve No. 1 (NPR-1), is the same as that of the U.S. Government and the taxpayers, namely, that maximum financial benefit be derived from the Elk Hills operation. Elk Hills must be operated in a commercial manner if maximum financial benefit is to be realized. The statute governing Elk Hills (The Naval Petroleum Reserves Production Act) mandates that the Secretary of Energy "produce the reserves at the maximum efficient rate consistent with sound engineering practices". In addition, the Unit Plan Contract between the U.S. Government and Chevron requires that the Government "shall always use its best efforts to secure as economical an operation as is consistent with sound oil field engineering practices". Based on our experience at Elk Hills, we have seen that DOE is not doing this nor is it running a commercially competitive business.

In fact, over the past 22 months alone, the lack of commercially competitive practices at Elk Hills has resulted in over $45 million of excessive expenditures. This wasteful spending will continue to increase by over $1 million for every week that dramatic change resulting in a commercial approach at Elk Hills does not occur.

We have a twofold purpose in being here today. First, to urge Congress to expeditiously move forward with the selling of the Government's interest in Elk Hills. Second, and alternatively, should Government decide to retain its part ownership of Elk Hills, to urge Congress to act as follows:

1. **increase the proposed FY 1996 "Caretaker Status" budget to a minimum level of $150 million (including FY 1995 carryover and new FY 1996 appropriations);**

2. **reject the FY 1996 budget proposal to form a Government corporation to manage and operate Elk Hills.**

BACKGROUND

The Elk Hills field has been a fully producing oil and gas field since 1976 when Congress and President Ford authorized its change in status and mission. As DOE correctly states in its FY 1996 budget, " Elk Hills no longer serves a strategic purpose for the Navy. The Public Law in effect changed the rationale for the program from that of a reserve source of fuel for the military to one of increasing domestic oil production and generating revenues for the U.S. Treasury."

Chevron has a vested interest in the future of NPR-1 at Elk Hills, with its 22% ownership stake. As the only other owner, Chevron has been in partnership with the U.S. Government for over 50 years at Elk Hills. Chevron's full history, however, at Elk Hills extends over 75 years to when Chevron's predecessor company, the Standard Oil Company, of California first discovered and produced oil in the field.

In the balance of my testimony I will share Chevron's perspective on DOE's FY 1996 Budget and the impact its proposed changes for the future ownership, management and/or operation of Elk Hills will have on obtaining maximum financial benefit from this asset. This perspective is based on the over 100 years of global experience Chevron has enjoyed as a leader in the oil and gas industry. This experience includes Chevron's current ownership in over 400 jointly owned domestic oil and gas fields, of which 40% are joint-venture partnerships with other companies. The testimony below covers the following three points of interest and concern to Chevron:

1. The FY 1996 "Caretaker Status" Budget

2. Formation of a Government Corporation

3. Sale of the Government's Interest

FY 1996 "CARETAKER STATUS" BUDGET

As co-owners, the Government and Chevron, should be extremely concerned with the idea of a "caretaker status" budget for FY 1996. This idea does not make good business sense. The risk which accompanies the "caretaker status" budget is very real. The budget of $78.8 million, as currently proposed, is approximately a 50% reduction, or $80 million below the FY 1995 budget. DOE estimates that this budget reduction will force the elimination of all capital investments and well workovers which would cause lost production and forgo other profitable opportunities. This would reduce revenues over the next four years by approximately $230-320 million. In addition, this "caretaker status" budget violates the statute governing Elk Hills by producing the reserve below the "maximum efficient rate". The net loss to the U.S. Government, the taxpayers and Chevron could be as high as $150-260 million. *Simple arithmetic belies the logic behind such an irresponsible budget reduction. Why would anyone want to cut expenses $80 million, and as a consequence reduce revenue by $230-320 million?*

If approved, the $78.8 million in newly appropriated funds for Elk Hills could be combined with available carryover funds from the Elk Hills FY 1995 budget. This would provide $108-130 million for Elk Hills. However, this would still be insufficient funding. DOE estimates, that to maintain current operating levels, expenditures would need to be $190 million. The "caretaker status" budget of $ 78.8 million will fall $60-82 million short. This shortfall will result in lost production, lost revenues and lost opportunities for field development. Only under a fully implemented commercial operation, which DOE does *not* propose (and in fact, has rejected) could such a budget reduction be imposed on Elk Hills without having a negative impact on production, profits and revenues. Again, simple arithmetic belies the logic behind such an irresponsible budget reduction.

Chevron estimates a *minimum* FY 1996 budget of $150 million (including FY 1995 carryover and new appropriations) is required to maintain Elk Hills production and revenue at current levels. This estimate is based on the following conditions being included in the budget legislation:

1. the current contract operator reduces its staff by 22%;
2. commercial practices, as seen as standard in the industry, are incorporated into the current operator's M&O contract extension;
3. these funds of $150 million are allocated to Capital Expenditures-$35 million, Operating Expense-$110 million, and DOE oversight-$5 million; and
4. production levels are maintained at the "Maximum Efficient Rate".

FORMATION OF A GOVERNMENT CORPORATION

DOE has proposed corporatizing Elk Hills (along with the rest of the Naval Petroleum and Oil Shale Reserves) in FY 1996 and then selling Elk Hills in FY 1997. Since corporatization would allow Elk Hills to be self-funded, no Congressional appropriated funds would be required for the operation of Elk Hills. The expenses of operating the field would be funded by the revenues generated from the sale of the production.

Chevron is not optimistic that the still undefined corporatization/self-funding authorization will be approved by October, 1995 or become a reality in FY 1996. If Corporatization, or at least the authority for becoming self funding, is not approved by October 1, 1995 then the DOE fallback position will be the proposed "Caretaker Status" budget. As discussed above, a "caretaker status" budget will not provide adequate funding for the continued current levels of production and will result in reduced revenues at Elk Hills.

In addition to our serious concerns with the "caretaker status" budget, Chevron believes the proposal to form a Government corporation for *one year* is an unnecessary and costly step for the Government to sell its interest in Elk Hills. DOE claims that by corporatizing for one year, it could increase the fair market value of its ownership share of Elk Hills when it is sold in FY 1997. DOE's rationale is that during this one year, significant investment projects could be implemented at Elk Hills which would have a positive impact on the worth of the field. Specific plans and details of such investments have not been released by DOE, nor is Chevron, as DOE's partner aware of any such plans. *Indeed, based on Chevron's experience in operating, buying and selling oil fields, we do not know of any investment projects which could be implemented in 3-5 years, let alone one year, that would significantly increase the fair market value of a sale of the Government's share of Elk Hills.*

Chevron strongly opposes this option of forming a government corporation to manage and operate Elk Hills. No accurate, up to date cost/benefit or economic analysis exists to support this option. The only economic analysis of which we are aware is in DOE's April, 1994 study entitled "Organizational Alternatives for the Naval Petroleum and Oil Shale Reserves". this study concluded that forming a government corporation resulted in more favorable economic return to the Government that any other option (i.e. commercial operation or leasing the Government's interest).

However, this conclusion is based on an invalid economic analysis. The figures used for price and production forecasts for the corporatization case were much higher than the numbers used by DOE in forecasts for any other option. Why? The oil price forecasts for the

corporation case were, in some years, more than double the other options. Why? These high forecasts not only generate the expectation of an unreasonably high financial return from a Government corporation, but also inflate and misrepresent the value of Elk Hills and create a false expectation of potential sale value.

We strongly recommend foregoing the unnecessary and costly step of corporatization. Corporatization would only lead to further delays and wasteful spending. There are those who think corporatization is the long term solution to the problems at Elk Hills. Chevron does not believe the formation of a government corporation would result in the commercial approach necessary to maximize financial benefit. There has been no evidence presented to suggest that it would.

SALE OF THE GOVERNMENT'S INTEREST

Chevron supports the recommendations of both this and previous Administrations to sell the Government's share of Elk Hills. This appears to be the most expeditious and perhaps the only way to accomplish the objective of operating Elk Hills commercially. The benefits of a sale for the U.S. taxpayers include:

1. an immediate return based on fair market value of the Government's share of this asset;

2. ongoing revenue from federal, state and local taxes; and

3. elimination of the continuing waste of $1 million per week caused by non-commercial operating practices.

CONCLUSION

Let me conclude with the following three points:

First, the statute governing Elk Hills mandates that the Secretary of Energy "produce the reserves at the maximum efficient rate consistent with sound engineering practices". The "caretaker status" budget will result in a violation of this statute and will cause financial loss to The U.S. Government, the taxpayers and Chevron. To avoid this legal problem, the FY 1996 budget for Elk Hills should be a minimum of $150 million.

Second, the best and perhaps only way to achieve a commercial operation is through a sale of the government's share of Elk Hills.

Third, we see no justification or logical rationale for corporatization and therefore cannot support it as either a partner or taxpayer.

Thank you for the opportunity to share Chevron's perspective on DOE's FY 1996 Budget and its impact on maximizing the asset value of Naval Petroleum Reserve No. 1 at Elk Hills for the U.S. Government, taxpayers and Chevron stockholders. I would be pleased to answer any questions you may have at this time.

FRIDAY, MARCH 24, 1995.

OFFICE OF SURFACE MINING

WITNESS

PAUL F. ROTHMAN, PRESIDENT, NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS

Mr. REGULA. National Association of Abandoned Mine Land Programs.

Mr. ROTHMAN. Mr. Chairman, my name is Paul Rothman. I am here today on behalf of the National Association for Abandoned Mine Land Programs. The association is comprised of 31 State and tribal abandoned mine reclamation programs and was organized for the purpose of enhancing communication, coordination and consistency between the States, tribes and the Office of Surface Mining on issues related to Title IV of the Surface Mining Reclamation and Control Act.

This collaboration is partly responsible for the success of several Federal initiatives, such as the OSM technical training program, the AML research program at the Bureau of Mines, and recent passage of the declaration of shared commitment between the State, tribal, AML programs and OSM.

Our members have, for more than a decade, aggressively pursued the remediation of numerous health and safety hazards which exist on abandoned land mine sites across the Nation.

Mr. REGULA. So you represent abandoned mine lands programs, not only the Indians, but generally; is that correct?

Mr. ROTHMAN. Nationally.

Mr. REGULA. Yes, your membership is made up of States or is it made up of individuals?

Mr. ROTHMAN. States and tribes.

Mr. REGULA. States and tribes.

Mr. ROTHMAN. Yes, sir.

Mr. REGULA. You are interested in what OSM is doing on the AML program; is that right?

Mr. ROTHMAN. Yes, sir.

Mr. REGULA. Would you like more money in that program?

Mr. ROTHMAN. That is basically it, yes, sir.

Mr. REGULA. I figured that. Yes.

What if we don't have more money? Is there any way we could make it work better than it is other than put more money?

Mr. ROTHMAN. There is a dedicated fund there, sir, and that fund has grown continually over the last decade.

Mr. REGULA. I understand that. It is like the social security fund. It is dedicated but there isn't any money in the bank.

That is the problem with this one, it is subject to appropriations, as you well know. But I know there is a great need out there. Very aware of it.

Ohio, of course, had a lot of open pit mining and a lot of pre law sites and I was one of the authors of the present law in Ohio, which has vastly improved our situation.

Mr. ROTHMAN. Nationwide.

Mr. REGULA. But there is a lot to be done in the abandoned programs. We are very sympathetic. It is just a matter of dollars.

Mr. ROTHMAN. We understand that, sir.
Mr. REGULA. And there are a lot of unmet needs out there.
Mr. ROTHMAN. Yes, there are, sir.
Mr. REGULA. Anything else that you would add?
Mr. ROTHMAN. No, sir.
Mr. REGULA. I guess I am in a sense testifying on your behalf.
Mr. ROTHMAN. Yes, you are.
Mr. REGULA. I know the problem. Thank you very much.
Mr. ROTHMAN. Thank you, sir.
[The information follows:]

TESTIMONY OF
PAUL F. ROTHMAN, PRESIDENT

NATIONAL ASSOCIATION OF ABANDONED MINE LANDS PROGRAM

SUBMITTED TO

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

REGARDING

FY 1996 APPROPRIATIONS OF THE OFFICE OF SURFACE MINING

MARCH 24, 1995

Mr. Chairman, Members of the Subcommittee, my name is Paul F. Rothman and I am here today on behalf of the National Association of Abandoned Mine Land Programs. The Association is comprised of 31 state and tribal abandoned mine reclamation programs, and was organized for the purpose of enhancing communication, coordination and consistency between the states, tribes and the Office of Surface Mining (OSM) on issues related to Title IV of the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87). This collaboration is partially responsible for the success of several federal initiatives, such as the OSM technical training program, the OSM/AML awards program, the AML research program at the Bureau of Mines and recent passage of the Declaration of Shared Commitment between the State/Tribal AML programs and OSM. The Association also conducts an annual conference for the purpose of exchanging new technologies and reclamation strategies.

Our members have for more than a decade, aggressively pursued the remediation of numerous health and safety hazards which exist on abandoned mine sites across the nation. While there have been great accomplishments made in this area, our work is far from complete. We are deeply concerned that further progress will be hindered by the continued limitations we would experience due to the recently proposed FY 96 budget.

As background, coal producers across the nation have contributed in recent years approximately $270 million dollars on an annual basis, to the Abandoned Mine Reclamation Fund. However, annual appropriations were considerably less than collected (190 million in FY 94, 182 million in FY 95). This historical practice of underfunding AML program activities has resulted in an unappropriated AML fund balance that is predicted to reach one billion dollars ($1,000.000,000) this year. With the tremendous amount of AML work yet to be addressed, it seems unconscionable to allow serious health and safety hazards to persist when dedicated funds are available to correct these problems.

I will address several issues of current concern to our membership:

AML PROGRAM FUNDING

The proposed FY 1996 budget perpetuates the practice of reducing AML reclamation activity. Historically, the reduction in AML appropriations has led to a large unappropriated AML fund. This in turn has then been utilized to offset the magnitude of the deficit. As previously mentioned, under the proposed budget, the balance in the AML fund will approach 1 billion dollars this year. All the while, hazardous AML problems are left in an unreclaimed condition. While the proposed budget reflects a proposed increase over FY 95 appropriation levels, the additional funding will in actuality mean very little to a majority of the State/Tribal programs. The Association would like to see funding increased to a level commensurate with the amount which is collected on an annual basis (270 million dollars).

Further, 30% of the Association membership are recognized as Minimum Program states. As a result of changes to Title IV of the Surface Mining Control and Reclamation Act in 1990, these minimum programs were assured a funding level of $2 million. FY 95 appropriations reduced those levels a full 25%. The proposed budget calls for the 25% reduction once again. As one might easily observe, this continued reduction could have serious impacts on these programs.

Attached to this testimony are copies of resolutions recently passed by the Association concerning both these issues. Also included is written testimony from the Crow Tribal Council which reflects a number of recommendations they would like to see implemented. More specifically, is the request that consideration be given to funding a program that would provide some much needed training on Public Law 95-87).

EMERGENCY PROGRAMS

A concern to some of the Association membership pertains to the issue of Emergency Program funding. OSM has, for a number of years, encouraged that all program states and tribes assume responsibility for the administration of the Emergency Program. However, Public Law 95-87 mandates the responsibility of this aspect of the AML program to OSM. Emergency Program funding has also experienced funding reductions in recent years. This has had a direct impact on some of the association membership. More specifically, some program states have been forced to fund federal emergency projects thereby prolonging the reclamation of high priority non-emergency AML sites. These unaddressed high priority projects can, and have, deteriorated into emergencies. This unfortunately increases both the magnitude and cost of the reclamation project. We feel that further reductions to emergency funding should be avoided, and if possible, increased.

CARRYOVER FUNDS

We are aware that recent congressional attention has focussed on the issue of carryover funds. More precisely, reducing or curtailing the amount of carryover. As such, the Association feels it is imperative that the Congress be aware of the following facts:

- AML reclamation grants have a 3-year performance period.

- State AML grant cycles rarely coincide with the federal fiscal year.

- Distribution of AML appropriations by OSM to States and Tribes occur well into the federal fiscal year. Generally about the second quarter.

- Any funds that happen to carry over to new federal fiscal years have generally been committed to specific sites and are not available.

Given the above information, the Association feels the idea of carryover funds is misleading as it applies to the AML program.

SUMMARY

It is the belief of the National Association of Abandoned Mine Land Programs, as well as the public, that the AML program was created for the express purpose of addressing the serious health and safety problems which exist throughout the nations coal fields. Reclamation of these sites should be performed in an expedient and effective manner. To further these goals, the Association respectfully requests that the subcommittee consider the following recommendations:

1) Recommend that FY 96 appropriations for AML program activities equal or exceed the amount of anticipated fee collections to the AML fund in FY 96.

2) Insure that the minimum program states receive that level of funding provided for in SMRCA (2 million dollars).

3) Fund the emergency program (both state and federal) at a level that will insure that non-emergency state and tribal programs are not impacted.

Thank you for the opportunity to present comments on the behalf of the Association. We would be glad to respond to any questions you may have at this time.

STATE OF ILLINOIS
OFFICE OF THE LIEUTENANT GOVERNOR

BOB KUSTRA
LIEUTENANT GOVERNOR

March 10, 1995

COPY

The Honorable Ralph Regula
Chairman, Subcommittee on Interior
House Committee on Appropriations
2309 House Office Building
Washington, D.C. 20515

Dear Chairman Regula:

As Chairman of the Illinois Abandoned Mined Lands Reclamation, I respectfully request that you include the following comments with the record of outside witnesses to your March 24 meeting of the Appropriations Subcommittee on Interior.

As you know, the total FY95 appropriation for abandoned mine reclamation grants, including emergency programs, was $135.7 million. This year, the Administration has proposed a similar budget, with an additional $11 million to fund the Appalachian Clean Stream Initiative. It is our understanding that the proposed distribution of this $11 million is to be based on historical coal production and will not be limited to the eastern states. We fully support this concept.

Last year, despite the Administration's proposal for a drastic reduction in reclamation funds, the Committee approved funding for state reclamation grants at the same level appropriated for FY94. We welcomed this stability, as it allowed us to continue with our reclamation work without interruption or loss of efficiency. The FY96 budget would allow this stability continue, while adding additional funds to begin to address the enormous problem of stream pollution in our coal-producing regions. This program has been ignored far too long. With the Abandoned Mine Reclamation Trust Fund now approaching $800 million, we all need to work together toward applying these funds to the areas of greatest need. I believe the Appalachian Clean Streams Initiative will help to accomplish that goal while meeting the original objectives of the Surface Mining Control and Reclamation Act of 1977.

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I strongly encourage you and the other members of the Committee to help facilitate these important reclamation programs by supporting the Administration's proposal for State Reclamation grants. While we have traditionally argued for substantially higher funding levels, we know of the many difficult decisions facing Congress this year in an effort to make government more fiscally responsible. We seek only to retain stability and the including of the important Appalachian Clean Streams Initiative. Your support in this endeavor is most appreciated.

For your information, I have enclosed a copy of the Council's most recent accomplishment report. I hope you'll have a chance to look through this document prior to your deliberations.

Please do not hesitate to call me if I can be of any further assistance to the Committee.

Sincerely,

Bob Kustra

BOB KUSTRA
Lieutenant Governor
Chairman of AML Reclamation Council

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Enc.

NATIONAL ASSOCIATION OF
ABANDONED MINE LAND PROGRAMS

ALASKA
ALABAMA
ARKANSAS
ARIZONA
COLORADO
CROW
HOPI
ILLINOIS
INDIANA
IOWA
KANSAS
KENTUCKY
LOUISIANA
MARYLAND
MICHIGAN
MISSOURI
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WYOMING

February 28, 1995

Honorable Ralph Regula, Chairman
Interior Subcommittee
House Appropriations Committee
Room B-308 Rayburn HOB
Washington DC 20515

Dear Congressman Regula:

Attached for your review and consideration are two resolutions which have been voted upon by the National Association of Abandoned Mine Land Programs (NAAMLP).

The Minimum Program states, which represent approximately a third of the Association membership, have expressed great concern with the significant funding reductions they experienced in FY 1995. A brief review of the proposed FY 1996 Presidential budget indicates that Minimum Program states might experience similar funding reductions this year. As such, the Association urges the Appropriations Subcommittee on the Interior to reconsider the impacts this will have on Minimum Program states and their ability to reclaim AML sites affecting the public's health and safety.

Additionally, I have also included a broader resolution that addresses funding concerns for the entire Association. This resolution encourages that appropriations to State and Tribal AML programs be increased to a level that will once more provide us with the funding necessary to adequately address the Nation's existing AML problems.

We greatly appreciate any assistance in this matter.

Should you have any questions, please contact me at (502) 564-2141.

Respectfully,

Paul Rothman

Paul F. Rothman
President

c Robert J. Uram
Vic Anderson
Stan Barnard

NATIONAL ASSOCIATION OF

ABANDONED MINE LAND PROGRAMS

ALASKA
ALABAMA
ARKANSAS
ARIZONA
COLORADO
CROW
HOPI
ILLINOIS
INDIANA
IOWA
KANSAS
KENTUCKY
LOUISIANA
MARYLAND
MICHIGAN
MISSOURI
MONTANA
NAVAJO
NEW MEXICO
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NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS

A Resolution Concerning Minimum Program Funding

WHEREAS, the Abandoned Mine Reclamation Act of 1990 amended the Surface Mining Control and Reclamation Act (SMCRA) and established a minimum program funding level for eligible states; and

WHEREAS, in the amendment, Section 402(g)(8) states that in any fiscal year, the Secretary of the Interior shall allocate annually not less than $2 million to each State and Tribe having an approved abandoned mine reclamation program with eligible Priority 1 and 2 AML projects; and

WHEREAS, minimum program funding is provided from the Federal Expense Share; and

WHEREAS, the rationale for establishing the $2 million minimum level of funding was to recognize that an effective, viable, and efficient reclamation program needed this level of minimum funding; and

WHEREAS, the FY 1995 appropriations for state reclamation grants reduced the annual funding from $2 million to $1.5 million to each of the 10 minimum program states; and

WHEREAS, without appropriate funding, minimum program states cannot adequately prevent deaths and injuries associated with abandoned mine land sites; now

THEREFORE BE IT RESOLVED, that the National Abandoned Mine Land Programs urges that annual $2 million funding level be maintained for minimum program states as authorized by Section 402(g)(8) of SMCRA as amended.

Paul Rothman

Signed this 1st day of February, 1995
Paul Rothman, President

NATIONAL ASSOCIATION OF
ABANDONED MINE LAND PROGRAMS

ALASKA
ALABAMA
ARKANSAS
ARIZONA
COLORADO
CROW
HOPI
ILLINOIS
INDIANA
IOWA
KANSAS
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MARYLAND
MICHIGAN
MISSOURI
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NAVAJO
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WASHINGTON
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WYOMING

NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS

A Resolution on AML Funding

WHEREAS: States and tribes continue to eliminate health, safety and environmental hazards associated with abandoned mine sites; and

WHEREAS: The States and Tribes have been mandated to accept new program responsibilities and new initiatives while at the same time Congressional Abandoned Mine Land (AML) appropriations have declined each year; and

WHEREAS: The AML program needs adequate funding to implement new initiatives authorized in the 1990 amendment to SMCRA which include acid mine drainage abatement, waterline construction, interim bond forfeiture sites and minimum program State and Tribe funding; and

WHEREAS: The AML program faces a tremendous challenge to administer and fund emergency projects, adequate funding must be provided to meet emergency needs; and

WHEREAS: States and Tribes continue to maintain a need for a consisted level of funding so they can effectively carry out the mandated reclamation responsibilities; and

WHEREAS: The unappropriated balance in the AML Fund is approaching $1 billion.

NOW THEREFORE BE IT RESOLVED: That the National Association of Abandoned Mine Land Programs urges the Office of Surface Mining and Congress to annually fund the Title IV program for reclamation of abandoned mine land and water by appropriating the full amount of monies ($270 million) collected as AML fees each year from the nation's coal operators.

Paul Rothman

Signed this 19th day of September, 1994
Paul F. Rothman, President

CROW TRIBAL COUNCIL
P.O. BOX 159
CROW AGENCY, MONTANA 59022
(406)638-2601

Crow Country

CLARA NOMEE, MADAM CHAIRMAN
JOSEPH PICKETT, VICE-CHAIRMAN
MARVIN STEWART, SECRETARY
DENNIS BIG HAIR, VICE-SECRETARY

March 21, 1995

Mr. Ralph Regula, Chairman
House Subcommittee on Interior Appropriations
308-B Rayburn House Office Building
Washington DC

To be submitted to the hearings on March 24, 1995 at 10:00 a.m. at Washington, D.C.

Dear Mr. Chairman Regula,

As you may be aware, the Crow Tribe is a major owner and producer of coal. Since July, 1974 when Westmoreland Resources began mining Crow Indian Coal at Westmoreland Absaloka Mine, located in Sarpy Creek, Montana, this mine has produced 79,455,745 tons as of March 20, 1995 (latest figures from Westmoreland Resources).

Since the passage of the Surface Mining Control and Reclamation Act of August 3, 1977, (SMCRA), Public Law 95-87, 30 U.S.C. 1201 et seq. The Crow Tribe has made substantial efforts to try to begin implementing Section 710 (a) of the Act on Crow Indian Lands. Section 710 (a) of the Act directs the Secretary of Interior to undertake a study of issues concerning the regulation of surface coal mining on Indian lands with particular attention to the special jurisdictional status of those lands. The Secretary is further directed to propose legislation, in view of factors revealed by the study, "...designed to allow Indian tribes to elect to assume full regulatory authority over surface mining of coal on

Indian lands." In carrying out the study, the Secretary is directed to consult with Indian tribes.

In 1978, the Crow Tribe under a subcontract with the Council of Energy Resource Tribe (CERT) participated in the US Department of the Interior's Congressional mandated study which helped provide some of the major recommendations that CERT submitted to the Office of Surface Mining to begin implementing Section 710 (a) on Indian lands.

On September 29, 1979, CERT submitted its report to OSM entitled, The Control and Reclamation of Surface Mining on Indian Lands. The report contains seven core recommendations concerning the proposed legislation:

(1) Tribes should have the option of electing to assume full tribal regulatory authority over all mining and reclamation activities on Indian Lands;
(2) Tribe should have the option of electing to regulate pursuant to a partial tribal program covering only certain aspects of the regulation of surface mining;
(3) There should be adequate federal funding of tribal regulatory programs;
(4) There should be established special training and education programs designed to assist tribes in acquiring skills and capabilities required for surface mining regulation;
(5) Special technical assistance should be available to tribal regulatory programs;
(6) Tribes should be compensated for the loss of those tribal coal resources which cannot be mined as a result of the Act's prohibition of mining in alluvial valley floors; and,
(7) Tribes should have flexibility in developing and implementing tribal regulatory programs in order to accommodate local or tribal-specific requirements.

Since 1979, Congress has done very little in regard to meeting the Tribal recommendations submitted by CERT to OSM and the US Congress. In October 1992, with the passage of the 1992 Energy

Bill under HR776, and the changes in the Surface Mining Control and Reclamation Act of 1977, under Section 2604, entitled "Indian Energy Resources Regulation", also calls for the secretary, of the US Department of the Interior to make grants for the purpose of training and educating employees to assist them in regulating and also authorize grants to develop tribal laws and regulations. In 1992, however, Congress did not appropriate funds to carry out the purpose of Section 2604, and this has caused the tribe a lot of unmet expectations concerning this law. We hope that this Congress will appropriate the $480,000 that has been requested by the US Department of Interior under OSM and the BIA to begin education and training tribal staff to implement the provisions of the SMCRA Act on Indian Lands.

Title IV AML issues

In addition, the Crow Tribe would like to go on record today, supporting the National AML Associations' requested Title IV appropriations to continue important title IV AML reclamation activities throughout the United States and Crow Indian lands. The requested amount is $270 million.

We sincerely hope that the United States Congress continues to prioritize these issues and we appreciate your support for our testimony on Title V and Title IV issues.

Sincerely,

for Clara Nomee, Madam Chairman
Crow Tribe of Indians

Merritt Hugh White Clay

Merritt Hugh White Clay, Director
Crow Abandoned Mine Lands Program

Ellis Knows Gun,
Assistant Director, Natural Resources
Supervisor, COR Title V Program

Minimum Programs Coalition

Abandoned Mine Land Reclamation

January 31, 1995

Robert Uram, Director
Office of Surface Mining
1951 Constitution Ave.
Washington, D.C.

Dear Director Uram:

The Abandoned Mine Land minimum program states of Alaska, Arkansas, Iowa, Kansas, Maryland, Missouri, New Mexico, North Dakota, Oklahoma and Utah are greatly concerned that minimum program states have sustained a 25% cut in funding. When the $2 million minimum program was established by Congress, it was done so after much consideration of basic planning, engineering and staffing needs of effective AML programs.

This unprecedented drop in funding has serious repercussions for meeting national program goals. Increasing the work on P1 and P2 sites is now far out of reach for ten AML programs. As examples of some effects these drastic cuts are having, Oklahoma will not let $300,000 of private sector engineering contracts; Kansas will have two dangerous highwall/water pit sites go unreclaimed; and Arkansas, Iowa and Missouri are redesigning presently designed large projects into smaller segments in a counter-productive and ultimately more costly manner. The long-term effects of ten programs operating at 75% have yet to be assessed. But, most surely, they are serious to each state's populace who are the customers of the Surface Mining Act.

We are thus asking you for your shared commitment in supporting the AML program to accomplish its mandate. This means supporting the program at an appropriate level with a guarantee of $2 million for minimum program states. We trust you share in this goal.

Sincerely,

Alaska AML
Arkansas AML
Colorado AML
Iowa AML
Kansas AML
Oklahoma AML
Maryland AML
Missouri AML
New Mexico AML
North Dakota AML
Utah AML

Alaska
Maryland
Arkansas
Missouri
Colorado
New Mexico
North Dakota
Iowa
Oklahoma
Kansas
Utah

FRIDAY, MARCH 24, 1995.

NATIONAL ENDOWMENT FOR THE ARTS

WITNESS

KATHRYN MURPHY BURKE, BOARD MEMBER, AMERICAN COUNCIL FOR THE ARTS

Mr. REGULA. American Council for the Arts.

Ms. BURKE. My name is Kathryn Burke, but my friends call me "Murph," and I am here to speak to Federal funding for the arts because it is a lot of jobs in the economy.

As Chairman of the Wisconsin Arts Board, I can attest to the value of each Federal dollar that comes into the State which is matched by us at the State level, and then we send it out to local arts agencies all over the State who match it again at that level with public and/or private dollars, thereby creating in communities Statewide the kind of arts and arts experiences that people in the cities and towns and villages want.

So I would hope that funding can be maintained, maybe changed and made more effective for the 1990s into the future.

Mr. REGULA. Do you favor giving a greater share to the States?

Ms. BURKE. Yes, I do.

Mr. REGULA. Would you favor eliminating the individual grants since they have been an enormous problem, as you know, in perception at least?

Ms. BURKE. Yes, I think if you changed the funding structure and gave more to the States, they could decide if they wanted to do individual grants at that level and take it off of the Federal load.

Mr. REGULA. And take the heat if they were.

Ms. BURKE. Right. I mean, things sell differently in different areas of the country.

Mr. REGULA. That is true. Well, as you know, there is a problem with the authorization. I assume you know that.

Ms. BURKE. Yes, yes.

Mr. REGULA. And I presume that your group will be contacting members of the authorizing committee?

Ms. BURKE. Well, in fact, I have been working with Steve Gunderson trying to figure out some good alternatives.

Mr. REGULA. Steve is on that committee.

Ms. BURKE. I think he will be coming out with a bill soon, so I would hope that you could provisionally appropriate some funds that would perhaps work if the authorization goes the way we would like it see it go.

Mr. REGULA. I have been in touch with the Chairman of the authorizing committee because if we were to put money in and there is no authorization, of course it is subject to a point of order when the bill gets to the Floor, and I would hope you are working with the Senate too.

Ms. BURKE. Yes.

I am working with everybody I can.

Mr. REGULA. That is the way to get it done. It is going to require a real grassroots effort, and that I think is—you are making progress. This is perhaps evident on the vote on the amendment last week that proposed to take an additional 10 that failed and I think in part that was due to the work that is being done.

Ms. BURKE. I think you said the magic word. It really is at the grassroots level that everything in America is strongest.

Mr. REGULA. That is what this country is all about when you get right down to it.

Ms. BURKE. You bet.

Mr. REGULA. Okay. Thank you.

[The information follows:]

Statement submitted by

KATHRYN MURPHY BURKE, BOARD MEMBER

AMERICAN COUNCIL FOR THE ARTS

before the

U.S. House of Representatives
Appropriations Subcommittee on the Interior

with respect to the

FISCAL YEAR 1996 APPROPRIATIONS

FOR THE

NATIONAL ENDOWMENT FOR THE ARTS

March 24, 1995

Good afternoon. Thank you for inviting me to testify. My name is Kathryn Murphy Burke and I am a board member of the American Council for the Arts. I am testifying with respect to the National Endowment for the Arts and recommending that Congress appropriate $172.4 million for this agency.

Mr. Chairman and members of the Subcommittee, let me state at the outset, that as a citizen of this country I believe our government has a responsibility in supporting the arts. If we as a people and a nation are to be true world leaders, we must be leaders in all areas of society, including leaders in the arts and humanities. It is vital to the interest of this country that we demonstrate support for the arts and humanities at the national level.

We cannot deny the fact that in no other period of time in the history of the United States of America have we as a people experienced such an expansion of the arts as has occurred in the last thirty years with federal support of the arts. Let us agree to the fact that there are more orchestras, theatres, museums, and dance companies. Let us agree to the fact that private sector support for the arts has multiplied many fold. Let us agree to the fact that more of our citizens have an opportunity to enjoy and participate in the arts, whether they live in our rural communities or inner-city neighborhoods. What ever your position is on federal support for the arts--for or against--you must accept the evidence that there is a clear correlation between federal government funding and the expansion of the arts in this country. The experiment worked and it worked well. You cannot deny the facts. You cannot deny that providing federal funding to the arts is a wise and prudent decision.

Besides the impressive numbers and statistics there are thousands and thousands of stories about the important impact of federal funding of the arts. As Chairman of the Wisconsin Arts Board, I have had the great pleasure of traveling across our State, talking with people and seeing the evidence.

Wisconsin has a rich tradition of community-based art. In the beginning part of this century, as a part of the Progressive movement, the *Wisconsin Idea* took shape. Its purposes were not only political and social but educational and cultural. The *Idea* was to extend the educational and cultural opportunities of the University of Wisconsin to all the people of the state. The reasons for this were: to relate art to people's everyday lives, to develop the native talents of the region, to create a favorable climate in which regional expression can grow, and to help break down the barriers between the rural and urban communities.

There are vast distances to be traveled in Wisconsin. It is an eleven hour drive from the northwestern city of Superior to the southeastern community of Kenosha. In between there are cities, businesses, people and cultures that are all unique but share a pride in and commitment to Wisconsin.

The wide range of arts experiences available in Wisconsin are as diverse as the people who take part in them. Examples of some of these experiences range from the polka band in Platteville, the Native American flute maker in Bayfield, the community-based performing arts center in

Amery, as well as the John Michael Kohler Arts Center in Sheboygan and the Milwaukee Repertory Theater.

In March and April of 1992, the Wisconsin Arts Board and its staff held its first town meetings in 14 communities throughout the State. These town meetings have since become an annual tradition. The Arts Board's purpose for holding the first meetings was to listen to constituent comments as it began its long-range planning process. Subsequent town meetings have been held to update our constituents on the work of the Arts Board and to answer constituent questions and receive their feedback relating to local, state, and national arts issues.

As I have traveled around the state for these town meetings, I am always struck by the energy of people, the vitality of each community, and the power of the arts. The arts boost the human spirit and help each community define its individuality, as well as what it means to be a Wisconsinite, and an American.

The area I would like to focus on today is what an important economic catalyst the arts are:

- **arts programs spur downtown revitalization**
- **a rich cultural climate attracts business and encourages corporate relocation**
- **the arts are a powerful attraction in promoting tourism**
- **the arts support many business sectors (I would add government sectors)**

The fact that arts programs spur downtown revitalization is well documented. I didn't have to travel far from home to see this phenomenon in action; Milwaukee's Third Ward is one such example. This area, formerly made up of run-down warehouse spaces, has been recently renovated and life has been restored. The Skylight Opera Theatre located its beautiful new Broadway Theater in this area. The Milwaukee Institute of Art and Design also built its brand new, multi-million dollar complex here. Theatre X and a variety of galleries, restaurants, and shops now call this area home.

It is also, a well documented fact that a rich cultural climate attracts business and encourages corporate relocation. This does not, however, only refer to our large urban centers. People choose where they want to live based jobs, family and on the quality of life. In the Northwestern Wisconsin community of Amery, population 2600, the Ramsey Clinic in the Twin Cities has found it easier to recruit doctors for its Amery satellite clinic since the Northern Lakes Center for the Arts was established. Similar stories have been heard from executives at papermaker Kimberly Clark in Appleton, Graebel Van Lines in Wausau, and corporations throughout Wisconsin.

Most importantly, is the impact of the arts on the lives of our citizens. Once again, I turn to Amery which has directly impacted from the National Endowment for the Arts' Dance on Tour program. Because of this program the citizens of Amery have had the opportunity to meet and see the performance of world-renown dancers. The Dance on Tour program has been a remarkable opportunity for people who otherwise may have only heard about these people in newspapers or possibly seen them on television.

The arts are also a powerful attraction for promoting tourism. One of the most beautiful tourist destinations in Wisconsin is the Door County area. Located in northeastern Wisconsin, Door County is known for its natural resources, its cherries, and its arts. As Bob Hastings, CEO of the Door County Chamber of Commerce, has told us repeatedly about the importance of the arts on Door County's tourist trade. "I have a water slide. All I want is one water slide. What I really want is more of the arts." He knows the arts will attract the type of tourist that will provide true economic impact for his community.

Finally, the arts support many business sectors, and I would add government sectors, throughout our state. Printers, hardware stores, restaurants, hotels, etc all benefit from a strong, local arts community. The local, state, and federal governments all benefit from the income taxes being paid by all artists and employees of the arts organizations.

To further support the claim that the arts have an impact on the business sector, let me recount a story about Solon Springs, Wisconsin with a population of just over 500 people. This is a community 30 miles south of Superior on our northern coast along Lake Superior. A couple of years ago a group of citizens set out to build an outdoor performing arts facility in their county park. There were numerous partners that became involved from the state, county and local community. Through a lot of sweat, blood, and bold determination these individuals opened the facility last July with a performance by the Duluth-Superior Symphony Orchestra. On that particular night, Solon Springs' population more then doubled as 1200 people attended the performance. What is the relationship to Solon Spring's business community?

In Solon Springs there are not too many restaurants but there is a Dairy Queen immediately outside of the entrance to the county park where the performance was being held. As people left this wonderful concert what do you think people thought about to end their summer evening? This little Dairy Queen just had 1200 people staring at it thinking about ice cream. I am certain that at ensuing concerts they probably had more staff to handle the onslaught.

Now the question will be asked, did federal funding directly go for these projects or would they have happened without that support? The answer is yes and no. Yes some of the initiatives are the direct result of federal funding. In other cases the federal funds have spurred state, local and/or private funds that have enabled the activities to occur. Possibly the projects would have happened without the funding, but it is my firm belief that we as a people would not evidence the level of activities in small rural communities or inner city neighborhoods. Quite frankly without federal funding you indeed would create a cultural elite. The arts would only be for those who could afford astronomical prices and who live in urban centers.

One of the visionaries that brought forward the *Wisconsin Idea* to the nation was the late Robert Gard, a Professor Emeritus at the University of Wisconsin Extension and pioneer in the field of community arts development. A recent reprint of a Gard speech in the publication Grassroots and Mountain Wings: The Arts in the Rural and Small Communities, sums up the *Wisconsin Idea* legacy that has become the Wisconsin Arts Board's philosophy of community arts development. "As America emerges into a different understanding of her strength it becomes clear that her strength is in the people, and that it lies in the places where people live. The people, if shown the way, can create art in and of themselves. The springs of the American people are at the grassroots."

He goes on, "If we are seeking in America, let it be seeking for the reality of democracy in the arts. Let art begin at home, and let it spread through the children and their parents, and through the schools and the institutions and through government. And let us start by acceptance, not negation...acceptance that the arts are important everywhere, and that they can exist and flourish in small places as well as large, with money or without it, according to the will of the people. Let us put firmly and permanently aside the cliche that the arts are a frill. Let us accept the goodness of art where we are now, and expand its worth in the places where people live."

FRIDAY, MARCH 24, 1995.

DOE: ENERGY EFFICIENCY

WITNESS

JOANNE LINDSLEY, PRESIDENT, SYNERGY CONSULTANTS INCORPORATED

Mr. REGULA. Synergy Consultants.

Ms. LINDSLEY. Good afternoon.

Mr. REGULA. I appreciate your summarization.

Ms. LINDSLEY. My name is JoAnne Lindsley. I am an architectural lighting designer and I am here to speak on behalf of the lighting energy-efficiency programs that are funded by the Department of Energy.

To give you an idea of what I do and people like me, some of my current projects are in your home State, the Inventors Hall of Fame that is going to open.

Mr. REGULA. Akron, Ohio.

Ms. LINDSLEY. Is going to open this fall and Procter & Gamble headquarters in Cincinnati is undergoing renovation of work we did for them 10 years ago and they are planning to make it more energy efficient.

Mr. REGULA. So you consult with companies on how they can construct buildings or renovate buildings to become more energy efficient.

Ms. LINDSLEY. Just the lighting portions of it. I am a lighting designer. We have also working on two buildings in——

Mr. REGULA. Are we energy-efficient?

Ms. LINDSLEY. No. We are also working on two buildings on the campus of Gonzaga University. Two of your Members are from that State of Washington as well.

Besides practice in lighting design, I also serve as chair of the lighting panel for the 90.1 standard board, the construction of new energy-efficient buildings. This standard, sponsored and written by ASHRAE, an organization of air-conditioning and heating engineers.

Mr. REGULA. Are building codes reflecting the type of thing that you are talking about?

Ms. LINDSLEY. Yes. We are in the midst of finalizing the new version.

Mr. REGULA. So cities and States, for example, and those who have responsibility for building codes get information from you and pay attention to it, is that accurate?

Ms. LINDSLEY. Well, yes. The Energy Policy Act that was instituted in 1992 requires that States do that, and we are in the midst of finalizing the newest version of that standard, and probably the best example of what the Department of Energy has done in that vein is that we have been working on this iteration of a new standard for about three years.

We sat around over dinner one evening and figured out that if we were all being paid, which none of us are, that the standard would cost in fees upwards of $6 million, and the travel expenses were close to $875,000, so by the time the public review process is finished, it could cost, if it were paid for in real dollars, about $10 million.

The Department of Energy has funded some assistance through their Federal laboratories of Bell Telephone labs and Lawrence Berkeley labs in California to assist in this process. They have spent $2 million doing this and what they have done is assist in the editing, the production of the paper, getting out drafts, and in targeted research to support some of the technology to keep the process moving.

So I think in that respect, a small amount of money facilitated the work of a great number of volunteers, and the Department of Energy is doing this in many different veins.

Mr. REGULA. Good. Okay. Well, thank you very much. It seems like it makes sense to do this. What is wrong with these lights?

I am curious.

Ms. LINDSLEY. Well, they—about 50 percent of the light is inhibited by the lens, so it is all trapped up there inside the fixture and not getting right down here.

Mr. REGULA. So get the right lens or in the absence of a lens, don't have as many kilowatts.

Ms. LINDSLEY. Now we are doing it for just over one watt per square foot.

Mr. REGULA. Are you finding that people renovate or is it pretty much new construction?

Ms. LINDSLEY. Oh, both. Both. Very much.

Mr. REGULA. Very interesting. Thank you very much.

[The information follows:]

SYNERGY CONSULTANTS INCORPORATED

March 24, 1995

Witness JoAnne Lindsley, IALD
President
Synergy Consultants Inc

The Honorable Ralph Regula
Chairman
Subcommittee on Interior and Related Agencies
House Committee on Appropriations
Congress of the United States
Washington, DC 20515-6015

Re **Department of Energy Lighting Energy Efficiency Programs**

Honorable Chairman.

Thank you for granting the opportunity to speak to the Committee. I wish to express my support and appreciation for these Department of Energy programs and request that you approve the funding request for FY 1996 Programs sponsored by the DOE have been extremely important to my professional practice and to the public interest work which encourages efficiency in the use of electric energy

Synergy Consultants Incorporated is a small business consulting in Architectural Lighting Design We assist architects and building owners in designing building lighting systems Current design projects include Inventure Place, the Inventor's Hall of Fame in Akron Ohio; The Museum of the City of New York and a State Court Building in Manhattan, Renovation of work we did 10 year ago at Proctor & Gamble Headquarters in Cincinnati, Ohio; and two new buildings on the campus of Gonzaga University in Spokane Washington

Throughout my career, I have worked to meet Client lighting needs in an energy conscious manner This attitude is based on a desire to use resources wisely, to slow negative environmental effects of energy consumption, as well as the important goal of savings on my Client's utility bills In lighting, energy can be conserved very easily by simply turning off the lights But, to produce required light quantity and quality with less energy requires technical knowledge, advanced lighting equipment and public guidelines to create awareness of energy conservation issues

When I began practice in the mid 70's, it was not uncommon to use 4 watts of energy per square foot for lighting in commercial buildings. Today, it is possible to light office areas comfortably with little more than 1 watt per square foot, a 75% reduction Real progress has been made

The Department of Energy and it's supported research through national laboratories Lawrence Berkeley at the University of California (LBL), Battelle Pacific Northwest (PNL) Oakridge and the National Renewal Energy Laboratory (NREL) has played a key role in facilitating this progress DOE programs have worked jointly with Industry sponsored programs to the benefit of the general public

Architectural Lighting ■ Energy Efficient Lighting Research
synergy consultants inc ■ 96 spring street ■ new york ny 10012 ■ ph 212 925-7600 ■ fx 212 925-9231

Two organizations serve the lighting specification community **The International Association of Lighting Designers (IALD)** is "dedicated to the advancement of lighting excellence in the built environment" Members are independent consultants unaffiliated with manufacturing, sales or utilities to ensure impartiality in product selection **The Illuminating Engineering Society of North America (IESNA)** has a more diverse membership, whose purpose is to "advance the art, science, and practice of illumination by investigation, evaluation, and dissemination of knowledge to consumers producers, and general interest groups through education, literary, and scientific means " Both organizations advance their goals through committee work All such work is done on a volunteer basis

As a member of these societies I have concentrated on lighting energy efficiency issues to help establish goals and standards to encourage wise use of our natural resources while maintaining the best interests of building occupants And I use these principles in my daily practice Light is a critically important element in our daily lives Proper lighting is a requirement for working and living and has a significant effect on how we feel as well as how we see Because of these goals, many of my colleagues and I have worked to integrate human lighting needs with energy efficiency requirements

ASHRAE/IESNA Standard 90.1 for Energy Efficient Design of New Buildings.

I chair the Lighting Panel of the Committee developing the ASHRAE/IESNA 90 1 Standard for Energy Efficient Design of New Buildings (American Society of Heating, Refrigerating, and Air Conditioning Engineers) The Energy Policy Act of 1992, Public Law 102-486, (EPact) requires all states to adopt this Standard or provide energy efficiency requirements of equal stringency

All members of this committee and others working on different tasks are volunteers, formed under strict ANSI (American National Standards Institute) guidelines for developing a consensus standard Recently we informally estimated the cost of this standard had it not been developed by volunteers If the committee had been paid normal fees, the work in 1992 through 1994 would have cost over $6 million in fees and $875,000 in travel expenses The standard will be issued for public review this summer When published, the total value could exceed $10 million

The Department of Energy has supported the work of our committee with research and staff assistance Through the Battelle Pacific Northwest Laboratory, the document received preliminary editing and co-ordination so that it reads as a single voice PNL also contracted to individual firms to do test studies for certain building types to assure that proposed Lighting Power Density values would not have a negative effect on other goals

Lawrence Berkeley Laboratories supplied unbiased equipment efficiency information and composite building profiles from their database which could accomplished by a facility such as LBL Individuals or lighting equipment manufacturers could not easily gather such comprehensive information

The Federal cost to facilitate this effort, I am told, has been just over $2 million $60,000 to $80,000 facilitated editing, production and distribution of subsequent drafts for committee review. $100,000 per year allowed time and travel, DOE, PNL & LBL participation at meetings The balance of the funding supported the targeted research projects

In my view, the 15% investment by the Federal Government was well spent It provided a catalyst for the volunteer 85% contribution It helped the committee to keep on track and concentrate on issues instead of production. It provided critical technical research at key moments so that the document is solidly based on achievable goals. Administrative and technical support allowed me to make the best use of the precious time of my committee members. We are all very proud of the standard that was developed It is clear, concise and very practical When it is put to use in the states, it is capable of facilitating the goal of 25% to 30% reduction in energy use

Could this standard have been written without DOE support? Most probably, but it would have taken considerably longer, and it would not have been as robust, or as comprehensive. Future plans, if funded, are to develop tools and assistance to practitioners and state governments to facilitate the implementation and use of this standard

The AdHoc Committee for Lighting Research & Education

In 1991, the DOE gathered representatives from all the major private and public organizations concerned with lighting The purpose was to discuss common goals concerning lighting energy efficiency research and education and to explore common interests The group meets twice annually to report on work in progress and to develop research priorities The DOE representative co-chairs the committee with the representative from the Electric Power Research Institute (EPRI)

The Secretariat is the Lighting Research Institute DOE provides minor funding to LRI to support distribution of proceedings Due to DOE initiative, the various organizations can work together at times, and no longer repeat work that has already been done In other words the human energy of these various entities has been optimized and the public body of information on lighting energy efficiency expanded Minimal government expense, facilitated a remarkable resource

Luminaire Efficiency Rating (LER)

One of the mandates of EPAct is an industry sponsored voluntary program for rating the efficiency of lighting systems The Lighting Collaborative is a committee formed with interested members of the AdHoc Committee The National Electric Manufacturers Association (NEMA) chairs this committee The current task is to develop a workable system for efficiency rating Lawrence Berkeley Labs provides technical assistance for this project Again, the majority of the work is done on volunteer time, augmented by some DOE support through LBL

New Equipment Technology and Tools

During the length of my professional practice, I have been aware of the DOE & LBL research in emerging technologies in my field The variety of research and results are too numerous to detail in this format The impact is that for each research project, new information is available industry wide for all concerned to utilize This research in some cases is work that would not have been done in the private sector, because manufacturers primary concern is developing equipment for profit If an individual manufacturer were to develop new information, it would be most likely held privately as proprietary information

The research at LBL speeds the entry of new efficient technology into the market place and makes innovation possible to the small manufacturer as well as the giants Examples of successes are: electronic ballasts, compact fluorescent technology and now the new Sulphur lamp that lights the walkway of the Forrestal Building

A DOE sponsored LBL authored computer program, *Radiance*, allows photo-like realism in screen viewing and light measurement of buildings before they are constructed Use of this program, once a user - friendly interface is written will be an invaluable assist in the building design process

I appreciate your consideration and request your continued support of the DOE lighting efficiency programs

Sincerely,

JoAnne Lindsley

JoAnne Lindsley, IALD
President

FRIDAY, MARCH 24, 1995.

DOE: ADVANCED TURBINE SYSTEM

WITNESS

R. SKIP HORVATH, SENIOR VICE PRESIDENT, RATE POLICY ANALYSIS, INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. REGULA. INGAA, Mr. Horvath.

Mr. HORVATH. Mr. Chairman, yes, thank you. I am Skip Horvath, Senior Vice President of the Interstate Natural Gas Association of America. We represent the interstate natural gas pipelines in this country, carry over 90 percent of all the natural gas that is consumed.

[The statement of Mr. Horvath follows:]

TESTIMONY OF

R. SKIP HORVATH
SENIOR VICE PRESIDENT, RATE POLICY ANALYSIS
INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

BEFORE THE

APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
UNITED STATES HOUSE OF REPRESENTATIVES

MARCH 24, 1995

Introduction

Mr. Chairman and members of the Committee. Thank you for the opportunity to appear before you today. I am R. Skip Horvath, Senior Vice President of Rate Policy Analysis for the Interstate Natural Gas Association of America (INGAA). I appear before you today to support the Department of Energy's request to fund the Advanced Turbine System Program in FY 1996.

INGAA was founded in 1944 by 14 natural gas pipeline companies and producers. Its current membership includes 39 domestic and international pipelines, including 31 U.S. interstate pipelines. In addition, 20 gas production and distribution companies are associate members of INGAA. INGAA is governed by a board of directors made up of 31 top pipeline executives and its U.S. members transport over 90 percent of the nation's interstate natural gas.

On behalf of INGAA, I wish to convey our appreciation to you Mr. Chairman, and the members of the subcommittee, for your continued support of the natural gas industry generally, and the Advanced Turbine System (ATS) Program specifically.

The ATS Program is an industry cost-shared program, coordinated by the Department of Energy, and intended to develop highly efficient gas turbines for utility and industrial electric power generation. It is the key to accelerating the development and use of efficient and extremely low emission turbine systems. The ATS program helps U.S. companies improve turbine technology for domestic markets, and supports continuing U.S. global leadership in this important technology. It also will help boost increased use of North American natural gas for electricity generation. This is good for our economy and for our environment.

Government's Role

The ATS Program Plan envisions government funding of $450 million, leveraged by private sector contributions in excess of $250 million over the life of the ATS program, which is planned to extend through 2000. Although private industry vigorously supports the ATS Program, the Department of Energy plays a critical role in this research by sharing the substantial risks and capital investments inherent in the development of new technologies. The partnership formed through the ATS Program allows industry and government to share information, expertise, and research facilities. This enables American companies to address areas of technical risk more quickly and effectively. As the major transporters, and as major consumers of natural gas, INGAA believes that government investment in the ATS Program is a wise investment for the future.

Economic Advantages

The ATS Program will generate U.S. jobs, reduce the trade deficit, reduce energy consumption, and reduce air emissions. Additionally, with the support of the ATS Program, American companies will be better able to compete in the global turbine marketplace -- a marketplace in which foreign competitors frequently receive significant assistance from their governments.

Seven other OECD countries spend a greater percentage of their GDP on similar research and development programs. In order to stay competitive in the world market, U.S. industry needs access to strategic U.S. Government support in order to maintain global leadership and develop new technologies.

A $1 trillion international market in electricity generating systems is expected to develop over the next decade. This Administration has identified, for example, a huge market for new power plants in Germany, China, East Asia, and Eastern Europe. Much of this market will be natural gas fired turbines. America's ability to capture a healthy share of this market would be greatly enhanced by continuing the ATS Program.

This country has a large stake in maintaining U.S. global leadership in turbine technology. Tens of thousands of Americans currently work to manufacture natural gas turbines and to provide components for the manufacture of turbines.

Finally, and of importance to United States' economic security interests, the ATS program will permit greater utilization of domestic natural gas resources to meet domestic power generation requirements. While gas turbine-based systems represent less than 10 percent of today's electric generating capacity in North America, they are expected to account for two-thirds of new capacity added over the next decade or so, with three-fourths of this being added in the United States. Currently, about 3.5 Trillion cubic feet (Tcf) of gas per year are burned for electric power generation. By the year 2002, use of gas to generate electricity is expected to increase by nearly 3 Tcf. The more efficiently natural gas can be burned to generate electricity, the more competitive natural gas will be in the marketplace and the more likely it is that domestic natural gas will continue to back out imported oil and petroleum products for peaking and intermediate generation needs.

Supporting breakthrough technologies such as the ATS Program is essential if America is to reduce its vulnerability to disruptions in world oil supplies.

Environmental Advantages

Modern natural gas combined cycle systems can achieve efficiencies as high as 55 percent. Technologies developed through the ATS program are intended to reach efficiencies of 60% or higher. This, in turn, will produce major reductions in fuel consumption. The Department of Energy has estimated that use of the ATS technology could provide national fuel savings of 1 quadrillion Btus annually by 2020. These environmental benefits will result in lower energy costs to consumers and enhance the competitiveness of American industry.

Moreover, gas turbines are the cleanest fossil power source in terms of all major emissions of concern. They produce no particulates, ash, heavy metals, toxics, or sulfur oxides. Because combustion is so complete, carbon monoxide emissions are typically less than 10 parts per million. Because of the high thermal efficiency of the combined cycle, oxides of nitrogen can be controlled to less than 10 parts per million.

Conclusion

For all of the foregoing reasons, the members of INGAA strongly support the funding for the ATS program. This government investment will reduce energy costs, further U.S. energy security, and advance our leadership in energy technologies for decades to come. In the end, the American consumer, the American taxpayer, and U.S. industry will benefit.

Thank you for the opportunity to express INGAA's position on this important program. I would be happy to answer any questions that the subcommittee might have.

Mr. REGULA. I have one running up through my farm.

Mr. HORVATH. Do you really?

Mr. REGULA. Columbia Gas.

Mr. HORVATH. Columbia Gas, one of our members.

Mr. REGULA. It is about 18 inch.

Mr. HORVATH. This is in District 12?

Mr. REGULA. It is 16. It is south of Massillon, south of Cleveland. They feed several villages or cities out of that line.

Mr. HORVATH. Sure, that is right. No trouble with it at all, I am sure.

Mr. REGULA. No, no, no.

Mr. HORVATH. I am here today to support——

Mr. REGULA. In fact, I am hooked onto it.

Mr. HORVATH. All right, that is good.

Mr. REGULA. Sure is. Of course I pay for it.

Mr. HORVATH. I am here today to support DOE's request to fund the advanced turbine system program, the ATS program——

Mr. REGULA. Is this the one that would push the stuff through? Because just beyond us a mile or so they have a compressor?

Mr. HORVATH. It is a similar technology, but this is designed to generate electricity from natural gas.

Mr. REGULA. Okay. So this is not a pushing turbine, but rather the generating.

Mr. HORVATH. Generating turbine, that is right.

Mr. REGULA. We have had a number of people testify on similar applications.

Mr. HORVATH. That is right. In fact Lewis, I used to work at Lewis Research Center, we worked on compressors up there when I was at NASA, many, many years ago.

Mr. REGULA. And you are interested in funding to develop advanced technology to make the turbines more efficient?

Mr. HORVATH. Yes.

There are four primary benefits to the ATS program. The first, it produces tens of thousands of U.S. jobs over the years. The second is that it reduces the trade deficit. There is a trillion-dollar market, international market, available in generating electricity. And for us to gain a healthy share of that we think the ATS program is important.

Third is that it reduces energy consumption because it is so efficient; over 60 percent efficiency levels, which are really quite high. The fourth benefit is environmental. Natural gas is the cleanest of the fossil fuels, no particulates, no ash, no sulphur dioxides, the list goes on. So for those four reasons, we think the ATS program is a great return on American taxpayer dollars, both because of the four benefits, but also because industry is putting in its own money. This is not purely a government program. So we are saying we believe in this as well.

Mr. REGULA. On a 50/50?

Mr. HORVATH. I am not sure what the percentage is. I can get that for you for the record if you need it.

Mr. REGULA. I would be curious.

[The information follows:]

INGAA

R. SKIP HORVATH
SENIOR VICE PRESIDENT, RATE AND POLICY ANALYSIS

April 11, 1995

The Honorable Ralph Regula
Chairman
Subcommittee on the Interior
Committee on Appropriations
B308 Rayburn HOB
Washington, DC 20515

Dear Mr. Chairman:

I promised you the answer to two questions you had after my testimony of March 24 on the Advanced Turbine Systems (ATS) funding. Your questions and our answers follow:

Q. *What is the ratio of cost-sharing between the government and private sector for the ATS program?*

A. The private sector will contribute approximately two-thirds, and the federal government approximately one-third, of the program's future costs.

Q. *At what stage is the ATS program? How long do we need to fund it?*

A. Currently, funding is required until 1999, at which point the system is expected to be at the demonstration stage.

I hope this responds to your concerns. If you should have any further questions, we would be happy to respond. Thank you once again for the opportunity to testify in support of this important research program.

Best wishes,

R. Skip Horvath

R. Skip Horvath

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA
555 13TH STREET, N.W., #300 W • WASHINGTON, D.C. 20004 • 202/626-3200

Mr. REGULA. But will this give our industry that produces turbines in the United States a leg up over, say, German, Japanese, or at least that is the goal?

Mr. HORVATH. That is the goal, that is right.

Mr. REGULA. It would make the most attractive turbine for the world market in terms of the four things you just mentioned?

Mr. HORVATH. That is exactly right.

Mr. REGULA. How long would this program need to be in place in order to——

Mr. HORVATH. Produce the benefits?

Mr. REGULA. Well, to be closed, yes.

Mr. HORVATH. Well, R&D is one of those where you can't give that estimate. But if I could get back to you on—R&D is a risky business. That is why both government and the private sector need to be involved.

Mr. REGULA. So the technology on the advanced turbine is still in the formative stage?

Mr. HORVATH. It is a little past the formative stage, and there may be a year that I can get you. I just don't have it on top of my head. I would be happy to look into that for you.

Mr. REGULA. But you feel can be done? It is a matter of developing through research?

Mr. HORVATH. That is correct.

Mr. REGULA. Okay, very well.

Mr. HORVATH. That is all I have. Thank you very much.

FRIDAY, MARCH 24, 1995.

RAMP PROGRAM

WITNESSES

CLARENCE RICHARDS, TENNESSEE ABANDONED COAL MINE RECLAMATION COMMITTEE

L.H. BURNETT, VICE CHAIRMAN, TENNESSEE ABANDONED COAL MINE RECLAMATION COMMITTEE

Mr. REGULA. Tennessee Abandoned Coal Mine Reclamation Committee. We have the RAMP program. Very familiar with it. I have been a long time proponent, but we are running out of money.

Mr. RICHARDS. Mr. Chairman, I am Clarence Richards. I am Chairman of the Tennessee Abandoned Surface Mining or Coal Mining Committee. And I am going to defer to begin with to my Vice Chairman, Mr. L.H. Burnett, who is knowledgeable on the subject.

[The statement of Mr. Richards follows:]

TESTIMONY

OF

CLARENCE M. RICHARDS

1183 Inglewood Drive
Cookeville, Tennessee 38501
(615) 528-1164

on behalf of the

TENNESSEE ABANDONED COAL MINE RECLAMATION COMMITTEE

and the

NATIONAL COALITION FOR ABANDONED COAL MINE RECLAMATION

to

THE UNITED STATES HOUSE OF REPRESENTATIVES

APPROPRIATIONS COMMITTEE

Sub-Committee on Appropriations to

Interior and Related Agencies

HONORABLE RALPH REGULA, CHAIRMAN

Room B-308, Rayburn House Office Building

Washington, DC 20515

March 24, 1995

Mr. Chairman and subcommittee members, my name is Clarence M. Richards, Chairman of the Tennessee Committee for Abandoned Mine Reclamation. I am a volunteer in advocacy for this important activity.

There are twenty states throughout the country in the coal mining regions that have the ugly scars, dangerous high walls, acid mine drainage and risky water pits created before reclamation became mandatory in 1977.

Nationwide there are 1.1 miillion acres of abandoned miine lands currently causing adverse affects in 20 states. Since the Surface Mining Control and Reclamation Act was passed, a tax has been gathered on each ton of coal produced in the United States. This tax is collected at a rate of 15 cents per ton of deep mined coal and 35 cents per ton of surfaced mined coal. Inadequate funding has only made it possible to reclaim 5% of the abandoned mine lands. The intent of the law is not being carried out.

During FY 1994, 15 States reclaimed 660 acres of abandoned mine land, which prevented 34,418 tons of sediment from reaching streams. This brings the total average annual soil savings by the RAMP program to 1,194,831 tons on 14,054 acres.

Rural land users in 20 states have made 4,628 program applications involving approximately 107,070 acres of abandoned mined lands. This includes 3,297 high priority sites covering 76,276 acres. At the end of FY 1994, 1,900 of these sites covvering 43,956 acres remain to be contracted. NRCS provides technical assistance under cooperative agreements with states and OSMRE to implement related reclamation efforts. Coordination of reclamation activities in a state is accomplished through a state reclamation coordinating committee.

In FY 1994, 109 new contracts were signed obligating $8.5 million for reclamation of 1,048 acres. This brings the total to $117.7 milliion obligated to rural land users who have signed 1,397 contractss for the reclamation of 17,542 acres.

RAMP has eliminated over 2,968 health and safety hazards, controlled erosion on 14,054 acres, which amounts to an annual soil savings of 1,194,831 tons. Visual quality has been improved on 12,775 acres and water quality improved in 60,935 acres of lakes and 909 miles of streams since the program began in 1977.

Abandoned coal mine lands continue to be a serious and major land and water resource and safety problem for the citizens of all 15 states with an active RAMP program.

We have been assured that there is adequate technical assistance available from NRCS to carry out reclamation if funded at the $25 million level. This is a much needed program and deserves high priority.

If the leadership in this Congress does not agree that this amount be budgeted, we strongly recommend that the program be put off-budget and paid for out of the trust fund which has been collected from current mining since 1978. It is our understanding that there is between 750 million and 1 billion dollars in this trust fund.

I thank you for your time and permitting us to testify in behalf of RAMP before this committee.

Mr. BURNETT. Mr. Chairman, my name is L.H. Burnett, and I am the Past Chairman the Tennessee Abandoned Coal Mine Reclamation Committee, and also the Past Chairman of the National Coalition of Coal Mining States, which is 18 States in the United States. And I am here to request $25 million to be put in the Rural Abandoned Mine Program, which is known as RAMP.

[The statement of Mr. Burnett follows:]

TESTIMONY

of

L H BURNETT

ROUTE 1, BOX 280
PELHAM, TENNESSEE 37366
(615) 592-5220

on behalf of the
TENNESSEE ABANDONED COAL MINE RECLAMATION COMMITTEE
and the
NATIONAL COALITION FOR ABANDONED COAL MINE RECLAMATION

to

The United States House of Representatives
Appropriations Committee
Sub-Committee on Appropriations to
Interior and Related Agencies
Honorable Ralph Regula, Chairman

Room B-308, Rayburn House Office Building
Washington, DC 20515

March 24, 1995

Mr. Chairman and subcommittee members, I would like to begin by thanking you for the opportunity to present this written testimony to your subcommittee. I present this testimony as Chairman of the Grundy County Soil Conservation District, Vice-Chairman of the Tennessee Abandoned Coal Mine Reclamation Committee and as a member of the National Coalition for Abandoned Coal Mine Reclamation.

Representing these organizations and the citizens of our nation's mine scarred regions, I request that 25 million dollars be placed in the Department of Interior budget for the Rural Abandoned Mine Program (RAMP) to be administered by the USDA Natural Resources Conservation Service. The RAMP program has a proven track record of successfully reclaiming abandoned mine sites, however funds must be made available to administer the program.

Nationwide there are 1.1 million acres of abandoned mine lands currently causing adverse affects in 20 states. Since the Surface Mining Control and Reclamation Act was passed in 1977, a tax has been gathered on each ton of coal produced in the United States. This tax is collected at a rate of 15 cents on each ton of deep mined coal and 35 cents on each ton of surface mined coal. A total of $3,655,879,049.06 has been collected from the tax on coal between 1978 and 1994. Yet, in this same 16 year period, inadequate funding has only made it possible to reclaim 5% of these abandoned mine lands. The intent of the law is not being carried out.

Due to the Congress's lack of concern, this accumulated revenue is being sequestered with the intent of hiding the "true size" of the national debt and masking the type of spending which has caused the deficit. Current accounting practices provide the incentive to cut programs which are financed through trust funds, even though such programs generate more revenue than they pay out in benefits.

As a representative of Tennessee and the other nineteen (19) states troubled by abandoned coal mine sites, I request this committee and the 104th Congress to change the policy of the past sixteen years and provide adequate funding for reclamation. It is the intent of the law that these funds be collected and used to reclaim the 1.1 million acres of abandoned coal mine sites in our nation.

These sites are polluting our streams, rivers, lakes and public water systems with acid run-off and sedimentation. They are used as illegal dumps for dead animals, car bodies, old tires, used roofing, and all types of household waste. Such areas are often within a few feet of homes, causing health and safety hazards to our citizens, especially children. These sites are also detrimental to our efforts at encouraging tourism.

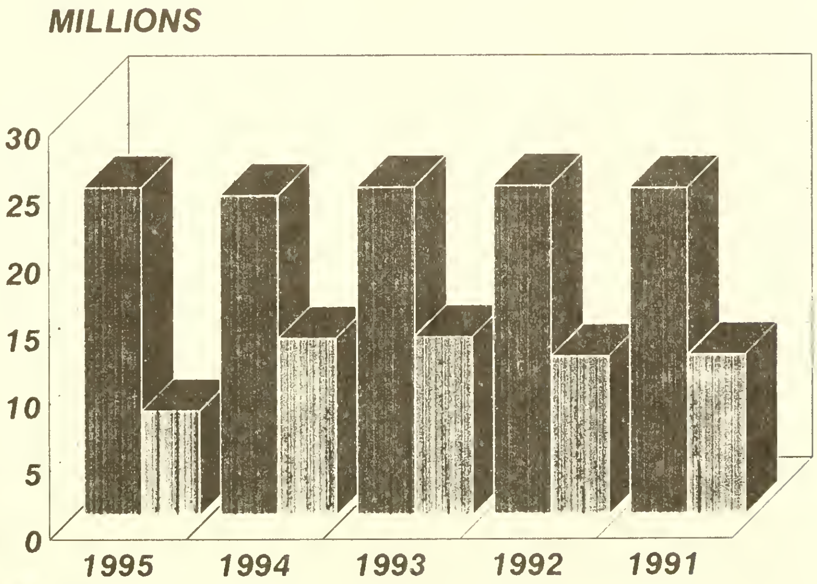
We envision a future that is economically, environmentally and socially rich. Our aims are to secure quality job opportunities for our citizens while we balance economic development with sustainable environment so we can live our individual dreams and enjoy a good quality of life.

When we look ways to improve our economy and health, one of the greatest obstacles we must overcome are the abandoned coal mine lands. We must heal these scars before we can expect economic development to come to our region. However, these scars can only be healed when Congress decides to release the money collected for abandoned coal mine reclamation.

Once again I thank you for allowing me to share these concerns on behalf of the coal mining states of our nation. I urge you, our representatives and our only recourse, to represent us by supporting a 25 million dollar appropriation for abandoned mine land reclamation in the final budget for Fiscal Year 1996.

RURAL ABANDONED MINE PROGRAM

AUTHORIZED VESUS ACTUAL



	1995	1994	1993	1992	1991
AUTHORIZED ■	24.4	23.8	24.4	24.5	24.3
ACTUAL ▨	7.8	13.2	13.3	11.8	11.9

Mr. REGULA. All right. I am very familiar with RAMP. And let me ask you this question. I have been a long time proponent of RAMP, but there are those who say, that with limited funds we should stay with one program, i.e. the State programs that we support, as opposed to having dual programs, the State program and RAMP. Now how would you respond to that?

Mr. BURNETT. Mr. Chairman, I am aware of that. I have read OSM's report or request on that. And RAMP is for the small, rural mines. It is in close to your homes. It is within very few feet where the children are playing. Your AML funds get you grants, larger, emergency funds, and does a larger work.

Now the RAMP program is set up in every State through the Soil Conservation Service. We have got men in place. It is a very efficient program, and we have got 1 million, 1.1 million acres of abandoned mines in this country.

Mr. REGULA. I know it is a real problem.

Mr. BURNETT. And this, since 1978, less than 5 percent of these 1.1 million have been reclaimed because Congress is sequestering these funds. There is $25 million coming into this RAMP fund yearly.

And, Mr. Chairman, I would like to say this. I have listened here today and all the people I have heard talk is asking for taxpayers' money. Now this is not taxpayers' money, this is money that is tax on coal that was for the benefit and to reclaim these abandoned mines. And we are requesting this money be appropriated.

Mr. REGULA. We only have so much money. Now we either reduce the AML money and put some in RAMP or we put it all in AML. There is going to be a certain amount of money to be distributed.

What would you do if you were sitting on the committee, given a restricted amount? Would you put 25 in RAMP and reduce AML by that amount?

Mr. BURNETT. I would not because, Mr. Chairman, there is one— they is approaching $1 billion to spend in this fund——

Mr. REGULA. It is not there. It is not there.

Mr. BURNETT. May not be.

Mr. REGULA. It is on paper, but it isn't in the bank.

Mr. BURNETT. It is supposed to be there, and it was for the intent of——

Mr. REGULA. Well, let me give you the reality. The reality is the money is not there, and the reality is we are going to have X number of dollars to do abandoned mine work. Now we can either put 25 in RAMP and reduce the AML amount appropriation by that amount, or we can put it all in AML. And I have to come back to you, because you represent Tennessee overall—which do you think will be a better or more efficient use of an X number of dollars, 25 million in RAMP and the balance in AML, or all of it that is available in AML?

Mr. BURNETT. What are you talking about, Mr. Chairman, the rest of it? Have you got a number in mind? Now I understand this comes through OSM, and there is about $300 million in their budget. Am I right?

Mr. REGULA. About 130, staff advises me, for this particular program. But I have still got to come back to my question. Would you rather have some of the money in RAMP and less in AML, or would you rather have it all in AML?

Mr. RICHARDS. We want some money in RAMP, Mr. Chairman. That is the situation that exists. As a matter of fact, Tennessee does not have primacy, so we cannot get any AML money. And we are speaking for 22 counties in Tennessee, as well as the national coalition.

Mr. REGULA. Don't you have a good mining law why don't you have primacy?

Mr. RICHARDS. I guess we must. I don't know what our new Republican Governor is going to say about this.

Mr. REGULA. I know your new Republican Governor very well. He is a very good friend of mine. He is a good man. Excellent person. And I am going to have some conversations with him. But—well, suffice it to say I am very aware of the problem and Ohio of course has a lot of abandoned mine lands.

Mr. RICHARDS. We appreciate that, Mr. Chairman. We appreciate your time.

Mr. REGULA. We are going to do the best we can because they create a hazard. They create water pollution problems——

Mr. BURNETT. I have been in Ohio.

Mr. RICHARDS. He is as well informed as we are.

Mr. REGULA. I live on a farm, and they mine on two sides of me, not on mine, but two sides, so I know all about it.

Mr. BURNETT. For the record, I would like to say I don't own any of these mines. I am a volunteer. I paid part of my way up here.

Mr. REGULA. Well, it is wonderful you are doing it.

Mr. BURNETT. I worked in the county government and I know what these counties need. Mr. Chairman, appreciate it.

Mr. REGULA. I think you are right, and that is why I have been a proponent of RAMP, and that is that they do the little projects. AML funds, they like to do big projects. But a lot of those little projects are bleeding sulfur water into the streams and downstream and it is not great for cattle.

Mr. RICHARDS. In Tennessee, we have 60 to 70 foot high walls. We have deep water pits. We have got acid mine drainage that is killing fish.

Mr. BURNETT. Can I show you a tile, Mr. Chairman, that was under the road for one year, a metal tile, and it absolutely eats that tile out in one year.

Mr. REGULA. I understand.

Are you getting good reclamation under your present law in Tennessee?

Mr. RICHARDS. Yes, sir, we have good support from the NRCS, the old soil conservation service. They do a good job. They assure us if they had——

Mr. REGULA. But of the new mines——

Mr. BURNETT. They are doing fine.

Mr. REGULA. Your law——

Mr. RICHARDS. Current mining since 1978, excellent. We have no problem with that.

Mr. REGULA. Okay. Very good. Thank you very much. If you see the Governor, give him my regards.

Mr. RICHARDS. I surely will.

FRIDAY, MARCH 24, 1995.

DOE: FOSSIL ENERGY

WITNESS

DEBORAH ROWELL, PETROLEUM TECHNOLOGY TRANSFER COUNCIL

Mr. REGULA. Okay. Last witness today, Petroleum Technology Transfer Council. How are you?

Ms. ROWELL. Hi. Fine, thanks.

Mr. REGULA. You are very patient.

Ms. ROWELL. Well, last but not least. Mr. Chairman, I appreciate this opportunity.

My name is Deborah Rowell, and I am the Executive Director of the Petroleum Technology Transfer Council, PTTC for short, and we are a new national organization, nonprofit, formed last year, to try to accelerate the transfer of technology to oil and gas producers, primarily the smaller ones. And my elected Chairman, Chris Hall, couldn't be here today.

[The statement of Mr. Hall follows:]

Testimony of
James C. "Chris" Hall, Chairman
Petroleum Technology Transfer Council

Before the
House Committee on Appropriations
Subcommittee on Interior and Related Agencies
March 24, 1995

Re: **FY96 Appropriations for Department of Energy, Office of Fossil Energy, Oil and Gas Programs and Related Technology Transfer Activities -- PTTC FY96 Request: $3,220,000.**

Chairman Regula, Members of the Subcommittee, I am the elected Chairman of the Petroleum Technology Transfer Council, an industry-driven partnership of the domestic oil and natural gas industry, the producing states, and the Department of Energy. I am pleased to comment today in support of the Department of Energy's FY96 funding request for oil and natural gas programs in the Office of Fossil Energy. I want to focus my comments on the technology transfer aspects of these programs. Today, I want to make several key points that support the continuation of a strong federal oil and natural gas program performed in partnership with the domestic industry and other stakeholders to benefit the national interest.

Before I begin, I want to take a moment to express my thanks to the Chairman for his interest in the PTTC program last year and to congratulate him on his new position as chairman of the subcommittee. I also want to offer the full assistance of the PTTC to the Chairman and to the subcommittee staff. Our role is to provide accurate information on oil and natural gas R&D and technology and that extends to the government as well as the producing industry.

Industry and Government Should Share in R&D Investments to Share in R&D Rewards

Mr. Chairman, public and private research continue to achieve advances in oil and gas geosciences, engineering, and exploration and production technology that could yield significant national benefits in the form of increased domestic production, reduced imports, and increased public sector revenues. Technology advances resulting from ongoing research and development (R&D) promise to amplify these potential benefits. Both industry and the public sector stand to benefit from the development and application of advanced exploration and production technologies. Likewise, Mr. Chairman, both must share in the investments if they are to share in the rewards. The industry's job is to explore and produce America's oil and gas resources economically, supplying the nation's demand while achieving a fair rate of return for the investor. But government, at the state and federal levels, also has an essential stewardship role. It must ensure that the nation's resources are produced efficiently and with respect for the environment.

Our industry and our government must recognize and work together in four key areas to succeed in sustaining a viable domestic industry and meet the nation's oil and gas needs.

- **Resources** -- Improving our understanding of the nature, location, and extent of the nation's discovered and undiscovered oil and natural gas resources and their potential to reliably supply U.S. energy needs.

- **Technology** -- Encouraging and assisting basic and applied R&D to improve understanding of geosciences and petroleum engineering, develop improved E&P

tools and processes, and stimulate their use by industry to maximize the technical and economic efficiency of exploration, production, and environmental protection.

- **Regulation** -- Eliminating unfair and ineffective regulations and barriers and insisting on scientifically risk-based, market-focused regulations that recognize costs and benefits, provide fair access to public lands, protect the environment, and enable efficient development of strategic energy resources.
- **Economics** -- Ensuring a fair taxation structure that provides incentives for investment and access to affordable capital for aggressive exploration and state-of-the-art development and production of U.S. oil and gas resources.

Today, domestic oil production has fallen below 50% of petroleum consumption. 450,000 jobs have been lost in the domestic exploration and production (E&P) industry since 1986. Major producers are consolidating domestic operations and focusing increasingly on overseas opportunities. Many independent producers are barely hanging on -- particularly with the recent plunge in natural gas prices. Industry investment in geoscience and technology R&D focused on America's oil and gas resources is being cut to the bone. The public sector needs to continue to invest wisely in high-potential R&D. That means identifying where advances in geosciences and petroleum engineering can achieve the greatest yield in deferring premature abandonments and maximizing incremental production. DOE needs to perform the focused research and related activities that are needed to achieve the potential.

Effective Technology Transfer Is Essential to Realize R&D Benefits

The full economic potential of new and exciting technologies will not be achieved if producers don't know about the technology, understand its economic potential, or feel comfortable with applying it in their reservoirs. Nor will it be achieved if known resources are abandoned in the reservoir before the technology can be applied. Effective technology transfer is essential to achieve the full benefits of this potential and to sustain a viable domestic oil and gas exploration and production industry. Investments in research and technology are worthless if the results are not aggressively transferred and applied to produce more oil and gas. Preliminary analyses indicate that some 80 percent of the potential benefits of improved technologies could be foregone without effective technology transfer.

But, current technology transfer approaches are not very efficient -- particularly as they serve independent producers. Rates of technology penetration in the independent producing community are far slower than among the majors. Studies performed by the Interstate Oil and Gas Compact Commission and DOE have identified significant gaps and inefficiencies and recommended improvements that must be made by government, industry, and the associations and professional societies that support the industry.

PTTC Effectively Transfers Products of Public and Private R&D

The PTTC's role is to help bridge gaps in technology transfer to producers, accelerate and improve the flow of technology information to domestic producers, and to provide essential industry input to the research community to help ensure that DOE and other research focuses on the highest priorities of the exploration and producing industry. The PTTC's approach is to serve as a national umbrella organization to help coordinate technology transfer activities to domestic producers and serve as an information clearinghouse.

The PTTC is industry driven. Producer advisory groups in each region nominate our Board and determine the technical content of the technology transfer activities. They begin by identifying the priority technical barriers to improved oil and gas production in the region. The PTTC then identifies technologies that can address the problems and performs focused technology transfer functions to inform producers of potential of existing technology to address the problems economically. Where solutions are not available, the PTTC reports the technology gaps and their relative urgency to the R&D community to help guide and focus the direction and priorities of public and private research.

Progress is Already Being Achieved and Will Continue in FY96

Mr. Chairman, the PTTC has already made great progress since its inception.

- Problem identification activities in five of the ten PTTC regions are already generating valuable input to DOE, the Gas Research Institute (GRI), and others as to the priorities for oil and gas R&D and focused technology transfer. We are synthesizing the results of these workshops and will soon provide input to DOE and GRI. By the end of FY95, limited results will be available from all 10 regions.
- Beginning in late FY95 and continuing in FY96, targeted workshops will begin focusing producer's attention on available technologies and information that can help them resolve specific high-priority technological problems at current prices.
- By the end of FY95, seven of ten PTTC technology resource centers -- established at existing technical institutions throughout the country -- will begin operating to provide technical assistance, access to information and analytical tools, and other technical outreach activities to serve domestic petroleum producers. In FY96, these centers will step up their activities and three additional centers will be implemented. We will also plan to implement smaller satellite centers to allow producers in remote areas to access the PTTC's information and services. We are working with the national labs through the Advanced Computational Technology Initiative (ACTI) to link all of the centers with the industry to provide access to information through the Internet.
- Commercial vendors of technology, analytical tools, data services, and other information are enthusiastic about making contributions to equip the resource centers, and to help train producers in state-of-the-art technologies to solve their high priority problems. They recognize that PTTC will help expand their markets while serving the producer and the public.

PTTC Helps DOE's Oil and Gas Programs Serve a Broad and Diverse Clientele

The PTTC is one key element of the oil and gas programs in the Office of Fossil Energy that makes good sense. It delivers demonstrable and measurable benefits to the producing industry and to the nation. The PTTC provides a new and effective means for disseminating the results and products of federally funded oil and gas research and analyses. With the Domestic Natural Gas and Oil Initiatives, ACTI, the reservoir class programs, and other actions in the Oil and Natural Gas Program Plans, the audience for the products of DOE programs has expanded. But the technologies and information resulting from DOE's overall oil and gas programs need dissemination to a far broader and diverse audience, not only of researchers, but producers, service companies, financiers, professional societies, industry associations, state and federal regulators, environmental organizations, and others. The PTTC plays a major role in the expanded federal technology transfer activity needed to do this effectively.

Congress Should Continue its Cost-Shared Investment in PTTC

The idea of forming the PTTC began in the Bush Administration and was adopted by the Clinton Administration because it makes sense. The PTTC has been in development for nearly four years. In November 1994, we signed a subcontract under the Management and Operating contractor for DOE's oil program to begin work. In January of this year, we received additional funding from Gas Research Institute. Regional lead organizations in 10 regions have pledged more than $12 million in cost-sharing over the next five years. The industry is stepping up to the plate to meet its commitment to this partnership. We need the federal government to continue to contribute its fair share. We request $3.2 million in federal cost-sharing for the PTTC for FY96. Our total cost estimates for the five year start-up period, shown in Table I, have been scaled back by 10 percent since last year, respecting the need to reduce federal spending.

Table I

PTTC Funding Requirements ($Thousands)

Source of Funds/ Yr.	**(Enacted) FY95**	**FY96**	**FY97**	**FY98**	**FY99**	**Total**
DOE FE Oil/Gas Programs	$ 2,200	$ 3,220	$ 3,280	$ 3,560	$ 3,460	$15,720
Non-Federal Cost-Share	$ 1,500	$ 1,700	$ 2,400	$ 3,200	$ 3,500	$12,300
Total	**$ 3,700**	**$ 4,920**	**$ 5,680**	**$ 6,760**	**$ 6,960**	**$28,020**
DOE Share (%)	% 59.5	% 65.5	% 57.7	% 52.7	% 49.7	% 56.1
Non-DOE Share(%)	% 40.5	% 34.5	% 42.3	% 47.3	% 50.3	% 43.9

Continued federal support of the PTTC effort is needed to get the effort off the ground. Beyond the fifth year, however, we expect that the industry will be able to fund most of the costs of continuing these efforts through self-generated revenues. We believe that this initial seed money investment by the Department of Energy will be returned in multiples through incremental federal revenues from new projects and incremental oil and gas production that will be stimulated by effective technology transfer.

DOE's Oil and Gas Programs Provide Vital Services to Government and Industry

Mr. Chairman, I want to close my testimony on behalf of America's oil and gas producers by asserting that Congress should continue to support an active DOE role in focused and prioritized oil and natural gas R&D and technology transfer. Oil and natural gas are strategically and economically critical national resources. The value of DOE's oil and gas programs extend far beyond geoscience and engineering research. They play a vital role within the administration in moderating intrusive environmental regulation and encouraging fair tax policies that assist industry while protecting the public pocket book. We encourage Congress to provide the funding DOE has requested to continue these vital efforts. Thank you.

Mr. REGULA. You are talking about drilling technology?

Ms. ROWELL. Yes, it is all upstream technology. It includes drilling; it includes environmental compliance technology, improved recovery.

Mr. REGULA. Okay. Now, you want to transfer it from whom to the industry?

Ms. ROWELL. We want to transfer it from the entire R&D community to producers. Now a very important part of that, of course, is the DOE research. But it also includes the national labs, the service companies, the gas research institute and all.

Mr. REGULA. So if you are a driller in Ohio with a county, for example, you would make some of the technology available; you would bridge that between this driller and the information that is available to do a better job?

Ms. ROWELL. Exactly. In fact, we have Belden and Blake from Ohio on our board. And we are the dissemination mechanism, as it were. We don't do R&D ourselves. We try to make it available to producers.

Mr. REGULA. Are you financed by the members like Belden and Blake?

Ms. ROWELL. We have funding—well, DOE provided us some seed money. Last year was our first year and I am here to talk about the second year. We also have some funding from the Gas Research Institute. But most of it comes from industry. And a very key part of it is State governments. We look at this as a partnership between the Federal Government, the State government, and industry. And we have got about four, going on five, States that have contributed thousands, hundreds of thousands of dollars. And just in a nutshell, and I have got a written testimony——

Mr. REGULA. Yes, we will put it in the record.

Ms. ROWELL. Yes, but in a nutshell, the way we want to disseminate this technology is not just through workshops and seminars, which are very important, but we are putting together these resource centers around the country, at least six this year. And that will provide computer workstations and information and databases and Internet access.

Mr. REGULA. So they can be on Internet and get the latest technology.

Ms. ROWELL. Right. And we are getting a lot of donations for that.

Mr. REGULA. That is very interesting. Do you serve just the small drilling or large ones, too?

Ms. ROWELL. We—we like to say it is the entire industry, but as you know, the independents are the primary recipients of this, or they need it the most.

Mr. REGULA. We have a lot of them in Ohio.

Ms. ROWELL. Oh, yes. And the Independent Petroleum Association of America actually created us or it was a—they initiated this effort——

Mr. REGULA. Right. I understand.

Ms. ROWELL [continuing].—Several years ago.

Mr. REGULA. So you need a little money to keep you going?

Ms. ROWELL. We need $3.2 million in fiscal year 1996. And it is—it is in the—supposedly in the DOE fossil energy budget.

Mr. REGULA. What is your total budget?

Ms. ROWELL. Our total budget over five years——

Mr. REGULA. Well, I know but——

Ms. ROWELL. Okay. For fiscal year 1996, we have nearly a $5 million budget. And two-thirds of it is being requested from DOE. But that is only in the second year. By the fifth year, it is a 50/50 split. So it is considered seed money. And then by our sixth year, we are going to be totally self-sustaining. And this is——

Mr. REGULA. You may have to accelerate that pace.

Ms. ROWELL. We will do whatever it takes.

Mr. REGULA. Okay. Thank you very much.

Ms. ROWELL. Thank you so much for your time.

Mr. REGULA. The committee is adjourned.

[COMMITTEE NOTE.—Some individuals and organizations who did not appear before the Committee submitted statements for the record. Those statements follow. First are statements regarding Department of Energy programs; next are those regarding mining and geology; finally are those on arts, humanities and museum services:]

March 20, 1995

STATEMENT BY CATERPILLAR INC.
SUBMITTED TO THE
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC

Caterpillar Inc. is a multi-national corporation headquartered in Peoria, Illinois which designs and manufactures diesel and spark-ignited engines used in a variety of on-road and off-road applications. In addition, Caterpillar is the world leader in the design, manufacturing and marketing of earthmoving, construction and materials handling machinery.

Caterpillar has strongly supported the programs of the Department of Energy's Office of Transportation Technologies (OTT) which are key to the continued success of the heavy-duty engine industry and the customers it serves. These cost-shared research and development programs are critically important to our ability to provide world-competitive, low-emission, energy efficient heavy-duty engines produced from a U.S. manufacturing base.

The diesel cycle engine is the durable, reliable, efficient engine of choice for construction and agriculture equipment, commercial trucking, marine applications and locomotives. A healthy, competitive heavy-duty engine industry is important to our nation's economy. Today, the industry provides over 650,000 U.S.-based jobs, contributes to the achievement of our national energy conservation goals, and helps reduce the U.S. trade imbalance.

However, we face unparalleled challenges in the form of mandated emission reduction standards, fuel efficiency requirements, customer-driven demands for durable and reliable products, and development of efficient alternative fuels technologies.

Our partnership with the Office of Transportation Technologies has focused on reducing exhaust emissions and improving fuel efficiencies through the development of new materials, advanced air, fuel and combustion systems and alternative fuel capability. With only modest government funding, these programs have made substantial progress toward developing the next generation of low emission, high efficiency heavy-duty engines.

Under the auspices of the Heavy-Duty Transportation Technologies program, Caterpillar has demonstrated significant fuel consumption improvement with single cylinder engine tests, producing world record low fuel-specific consumption levels. This initial phase is being followed by a multi-cylinder technology demonstration and emissions reduction program. The final phase, scheduled for the late 1990s, will move from the laboratory into field test and evaluation.

Caterpillar believes we must sustain this partnership of private sector and government if we are to meet the growing challenges of major European and Japanese competitors. With higher fuel prices and a more aggressive government-industry research and development partnership, both Japan and Europe have greater levels of both market pull and government funding to advance diesel engine technology. Europe and Japan's combined R&D funding for diesel engine research is 5 times greater than the United States. Caterpillar believes it would be short sighted for the U.S. to permit our foreign competitors to erode U.S. industry's world-wide preeminence in heavy-duty engine technology and market share.

The Department of Energy FY 1996 budget request of $6 million sustains the FY 1995 level, a modest amount to develop and demonstrate advanced heavy-duty engine technologies. Responding to Congressional and industry concerns, the program has been re-focused to pull forward promising emissions control technologies before the end of this decade.

In the last budget cycle, Congress acknowledged the importance of this program to achieving national energy and emissions reduction goals and maintaining the global competitiveness of U.S.-based manufacturers. In a time of fiscal constraint, Caterpillar strongly believes that the continued funding of this heavy-duty engine research and development program is essential and cost-effective.

Therefore, Caterpillar urges the Committee to approve the Department of Energy Fiscal 1996 funding request for Heavy-Duty Engine Technologies programs within the Office of Transportation Technologies.

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Testimony on Department of Energy's FY96 Funding Programs By

Chrysler Corporation, Ford Motor Company, and General Motors Corporation

HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE

Chairman, The Honorable Ralph Regula

Introduction

Chrysler, Ford, and General Motors appreciate the opportunity to comment on important elements of the Department of Energy's FY '96 automotive research budget. Through a number of ongoing DOE projects, the United States Council for Automotive Research (USCAR), composed of the three manufacturers, is coordinating cooperative, pre-competitive basic research in tandem with government research experts and programs. In addition to DOE projects, the industry is actively involved with key research activities within the federal system, to determine whether applying advanced technology solutions to a certain class of vehicles can be made commercially viable.

We have found that research efforts worked on collaboratively have proved to be far more valuable than either individual company projects, or government projects working without the benefit of a commercial manufacturing base to validate findings. Also, a collaborative process that combines the best technical expertise of industry, government, or academic resources is far more efficient for the development of advanced automotive technologies than the mandated, command and control practices that forced manufacturers to work independently and ultimately translated into higher costs to the motoring public.

PNGV Program Overview

An important element of the Department of Energy's budget proposal is the Partnership for a New Generation of Vehicles Program. Through this initiative, USCAR and several federal agencies are jointly researching leading-edge, "breakthrough" automotive technologies. The program relies extensively on the technical contributions of many small, high-technology U. S. businesses, a number of universities, and the automotive supplier community.

The three stated goals of the Partnership for a New Generation of Vehicles program are (1) to enhance U.S. manufacturing productivity; (2) to research technologies that could enable near-term improvements in fuel efficiency of present generation vehicles; and (3) to pursue longer-term, high risk technologies in which major breakthroughs could ultimately lead to quantum advances in automotive fuel efficiency. The technologies under development in the program, such as energy storage, energy conversion, and advanced lightweight materials, clearly will have applicability in multiple private and public sector areas. In essence, the program focuses and integrates automotive industry and government efforts in basic research on high-risk, leading-edge technologies.

PNGV Program Overview (Cont'd.)

By establishing highly ambitious goals, such as striving for an improvement of "up to three times" the fuel efficiency of today's vehicles, the objective of both the government and industry was to introduce an aggressive "stretch" goal that would inspire creativity, rather than fine-tuning of existing know-how.

Key Program Elements

Leveraging

A key element of the PNGV program is the leveraging of resources by working cooperatively on pre-competitive, basic research. The program strategically aligns the goals of the three industry partners, including suppliers, with those federal agencies and labs that are engaged in similar or complementary research programs. This process model produces an enormous leveraging opportunity for each participant by coordinating a large number of previously separate projects into a coherent, focused program. This model has been used successfully for decades by the auto companies and their supply base, and in cooperative programs with the government.

Industry Led

The industry has formed technical teams to direct research on the most promising enabling technology areas. Examples of technical areas are advanced propulsion systems, lightweight materials, and efficient energy storage systems. The industry will be responsible for defining metrics and milestones in the form of a technical roadmap that will set research priorities and select technical content and features, consistent with consumer demands. The technical teams essentially will work toward meeting the goals of the roadmap.

Resource Focus

PNGV enjoys a unique opportunity to attract the best technical expertise available within the federal research establishment, university programs, and high-technology suppliers-- a number of which are not presently addressing transportation challenges-- and that of individual inventors. Since program inception in late 1993, there is strong evidence that important benefits have accrued from the very visible commitment of the auto companies and the administration to dedicate their best resources to the PNGV program. We believe that this focused collaborative research approach to address national priorities is the most efficient method to preserve the nation's strong preference for personal mobility over the long term, without relying on regulatory solutions that have proven to be costly and inefficient.

Key Program Elements (Cont'd.)

Voice of the Customer

An important element of this collaborative model is to use the voice of the customer to establish objectives and make critical business decisions. By keeping the customer's interests prominent in any technical solution, we ensure that natural market mechanisms will proliferate high-technology products more quickly than previous methods. Accordingly, the PNGV research goal is to develop a production prototype vehicle by the middle of the next decade that offers the same functionality, affordability, and safety, at the same price as today's conventionally designed vehicles.

Nature of Funding

The PNGV program represents a unique opportunity to align pre-existing federal research programs in support of breakthrough vehicle technologies. Much of the federal funding for PNGV programs represents a continuation of research efforts for pre-existing national priorities, many that pre-date the launch of the PNGV program.

As noted earlier, a principal benefit of the PNGV program lies in its ability to align or coordinate existing federal research programs with PNGV objectives at little incremental cost. Much of the federal funding of PNGV is directed to federal labs and government agencies. Industry-directed funds in many cases are re-directed through the auto companies to small, high-risk entrepreneurial firms that are leaders in the high technologies of the program.

This process has been successful in improving efficiency of both government research activities and those of the auto companies, while allowing each to pursue indepedent but complementary research goals.

Role of Government

PNGV's objectives include development of the basic technology breakthroughs needed to significantly improve the next generation of automobiles and the manufacturing processes needed to produce them. These research goals are in the public's broad interest because they can contribute to reduced dependence on imported oil, improved environmental quality, and global competitiveness of our economy. But it is important to remember that demand for most of these advanced technologies is not driven by market forces and consequently offers little opportunity for near-term, tangible returns to private industry.

We applaud congressional efforts to improve the efficiency of research investments and recognize that deficit reduction and other fiscal priorities may necessitate some restructuring of programs such as PNGV. We feel strongly, however, that if congress

Role of Government (Cont'd.)

is to succeed in streamlining federal research activities without compromising important basic research, it needs to introduce the criteria of market sensitivity and business discipline to the process. We believe that direct interaction with the private sector research activities on joint projects will result in the quickest and most effective implementation of these objectives.

PNGV is a research program and is not tied to the regulatory process. It does, however, represent a new model for government and industry to tackle problems of common interest through cooperation and mutual trust. Long-term, we believe cooperative approaches of this kind may be used broadly by American industry to help our nation reach important societal goals more quickly and efficiently than the adversarial, bureaucratic, and costly mechanisms relied on in the past.

Recommendations

We strongly believe that continuation of the PNGV program is in the best interests of both our industry and the nation. In particular, the Department of Energy's transportation technology programs in the areas of energy conversion, energy storage, hybrid propulsion, and light weight materials, address the most critical challenges of the PNGV program and are vital to our success. Furthermore, these technical areas represent the program's highest priorities.

We in the auto industry strongly support the goals of the programs being funded through these areas of the Administration's 1996 fiscal year budget request, and recommend continued funding of these important projects. We are also very sensitive and supportive of the need to reduce the Federal budget deficit and are prepared to work with Congress and government to adjust the pace and scope of the program as needed to accommodate the near-term pressure on federal spending.

Chrysler, Ford and General Motors believe strongly in the merits of research being conducted under the PNGV program. We are prepared to maintain a meaningful core level of effort and resource expenditure on programs such as PNGV. Significant cuts, however, in the level of program funding will undoubtedly delay achievement of many research goals and perhaps necessitate a rethinking of the scope of the program. We would be pleased to work with Congressional and government staffs and others, as needed, in an effort to integrate these two national priorities.

Conclusion

The industry is very supportive of the PNGV program model and pleased with the successes achieved to date. We believe that continued government participation in and support for this program is critical to our collective interests.

April 7, 1995

STATEMENT BY DETROIT DIESEL CORPORATION SUBMITTED TO THE INTERIOR APPROPRIATIONS SUBCOMMITTEE OF THE HOUSE APPROPRIATIONS COMMITTEE FY96 DOE CONSERVATION BUDGET

Thank you for the opportunity to provide the following written testimony. Detroit Diesel Corporation (DDC) is pleased to offer the Company's views on the Department of Energy's (DOE) Office of Transportation Technology efforts. This testimony outlines Detroit Diesel Corporation's involvement in alternative fuels, discusses the company's relationship with the U.S. Department of Energy, identifies program areas that are important to the heavy-duty vehicle industry, and examines programs that we anticipate will be critical to future research.

Detroit Diesel Corporation designs, manufactures, sells and services heavy-duty diesel and alternative fuel engines, automotive diesel engines, and engine parts. The Company offers a complete line of diesel engines from five to 10,000 horsepower for the automotive, on-highway truck, coach and bus, construction, mining and industrial, power generation, marine, and military markets. DDC serves these markets directly and through a worldwide network of over 2,500 authorized distributors and dealers. The Company and its manufacturing, remanufacturing and distributor subsidiaries have over 6,300 employees. Detroit Diesel Corporation had 1994 revenues of $1.7 billion and net earnings of $36.1 million and invested $64.4 million in research and development.

Coordinated efforts through the U.S. Truck consortium and other cooperative agreements allow Detroit Diesel Corporation, along with other heavy-duty engine manufacturers to help advance heavy-duty vehicle and transportation technology and meet Federal mandates for alternative fuel vehicle commercialization, emissions reduction and efficiency improvement.

Overall, the transportation sector accounts for over 65 percent of the petroleum consumed in America and has done so every year since 1990. Over half of the petroleum America consumes is imported, which has implications for our national security. Diesel fuel provides over 20 percent of the energy consumed by all forms of transportation, and heavy-duty trucks and buses burn over 60 percent of the diesel fuel. Their combined annual diesel fuel consumption is the equivalent of over 1.6 million barrels of crude oil per day. The movement of people and goods by bus and truck is crucial to the health of the United States economy. Since virtually all such travel is non-discretionary, the only means of reducing the petroleum demand of trucks and buses are technological: substitute alternative fuels for petroleum diesel fuel or make more efficient use of diesel fuel where alternatives aren't practical. Working in partnership with the U.S. Department of Energy and on its own, DDC, whose core business is manufacturing diesel engines for heavy-duty trucks and buses, has made steady progress on both fronts.

One of the most promising of DDC's current collaborations with the DOE is the advanced diesel engine program under the direction of the Office of Transportation Technologies. This program aims to design and demonstrate a low emission Diesel engine of very high efficiency. Program goals also include levels of particulates (soot) and nitrogen oxides 50 percent lower than the EPA's 1998 standards. Every new engine that replaces a 15-year old diesel engine in the heaviest over-the-road trucks would represent a 30 percent improvement in its fuel consumption and carbon dioxide emissions. In cost-shared efforts with DOE, DDC has designed an Advanced Reference Engine to demonstrate its LE-55 concept. DDC will build and test the engine to evaluate its approach and to develop the technology for the next generation of heavy-duty truck power plants.

DDC has its Series 60 truck engine emissions-certified for all 50 states and capable of efficiencies nearing 46 percent. DOE support helped to make this accomplishment possible and helped bring realization of the LE-55 program goals that much closer. The Series 60 engine embodies technological advances that will also be employed in LE-55 engines. Their demonstration in a commercialized engine is a significant forward step.

Currently, DDC is pursuing a half-dozen other research, development and demonstration projects under contract to DOE. Many of these involve advanced ceramic materials whose high-temperature capabilities will be necessary if the ambitious emissions and fuel consumption improvement goals of next-generation engines are to be achieved. One project, however, involves the development, certification and demonstration of another in a series of DDC heavy-duty alternative fuel engines.

DDC has strongly supported the Department of Energy's alternative fuel utilization program and continues to do so. DDC has designed, developed and demonstrated heavy-duty engines for operation on methanol and ethanol as well as other, more advanced alternatives such as hydrogen and a coal-water slurry. DDC has built and sold more heavy-duty alcohol-fueled diesel engines than any other U.S. engine manufacturer. Over 600 of DDC's 6V-92TA engines are in service in transit buses and line-haul tractors nationwide, burning methanol and ethanol. These units are making significant contributions to air quality in several urban centers, since these fuels produce essentially no soot and DDC's combustion and engine control systems are calibrated for very low levels of other regulated emissions.

DDC is a proponent of other current R&D activities that will impact the heavy-duty transportation area. These include the Alternative Fuels Utilization, Materials Technology, and Heat Engine Technology programs in the Office of Transportation Technologies at the Department of Energy.

The Heat Engine Technology program has heavy-duty engine technology projects ongoing in diesel engine technologies, efficiency improvements and emissions reductions. DDC encourages and supports the Department of Energy in developing "Clean Diesel" technologies which will dramatically reduce engine emissions while further improving the already high fuel efficiency and alternative fuel capability of the diesel engine. We would like to encourage the continuation and increased support of funding for these programs.

DDC maintains a strong corporate commitment to research and development and, on its own, has taken the initiative to remain in the vanguard of heavy-duty engine technology development. But DDC must operate in an increasingly competitive international marketplace which often demands that its attention be on shorter-term considerations than those of national energy security and public health that are the proper province of government. Accordingly, DDC has welcomed the opportunity to team with the government to address these larger concerns. These efforts have benefited the U.S. heavy-duty engine industry, the nation's economy and the health of its citizens. DDC encourages the continued funding of these programs so that they may go on doing so.

DDC looks forward to continuing its relationship with DOE and the Federal government. We can point to solid progress toward national technological goals in energy conservation and air quality improvement that has been accomplished in DDC's past and current collaboration with government. With comparable objectives, both industry and the Federal government can accomplish similar goals by working together. DDC hopes to expand this win-win relationship with the Federal government in the future.

Cummins Engine Company, Inc.
Box 3005
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47202-3005

March 16, 1995

The Honorable Ralph Regula
Chairman
House Subcommittee on Interior
and Related Agencies
B-308 Rayburn Bldg.
Washington, DC 20515-6023

Dear Sir:

Thank you for the opportunity to provide written testimony concerning the DOE Heavy Duty Transport Program.

For the past two years we have testified concerning this Program, both to your Subcommittee and to the Authorization function. In that testimony we stressed the value of the diesel portion of DOE's Heavy Duty Transport Program to U.S. industry. We indicated that U.S. emissions regulations lead the world (which we support), but that almost no government funding has been made available to support emissions research and engineering.

Congress responded to this testimony with broad bipartisan support of specific language in the Energy Policy Act calling for diesel engine emissions research. The House specifically supported an investment of $10 million per year for 5 years ($50 million total) for this effort, as an appropriate addition to the current $6.5 million/year DOE diesel program which is focused on fuel economy improvement. As yet, however, no additional funding has been provided to DOE.

In the meantime work on emissions technology has continued in the U.S. and overseas. The U.S. efforts have been mostly led and funded by U.S. industry. Our teams have included scientists from National Laboratories, who are the best in the world, but their government-derived funding base is seriously at risk. Many of the overseas efforts have been coordinated and heavily funded by their governments. This work has led to a widespread consensus that diesel engines, perhaps burning alternative fuels, will likely remain the preferred power source for heavy duty transportation in the near future (10+ years) and will likely become the preferred source for automobiles in this time frame. These conclusions are based on emerging fuel economy and emissions data for alternative technologies and on new prospects for reducing emissions from diesel engines.

The diesel engine industry represents about $30 billion/year, worldwide. The diesel industry also employs over 640,000 people in the U.S. Heavy duty transportation in the U.S. is all diesel powered. The vast majority of next generation automobile engines currently under development in Europe are diesels. Diesel engines also are the most promising relatively near-term energy sources for electric hybrid vehicles. Diesel engine technology leadership is, therefore, likely to be one of the most critical future issues for international competitiveness and U.S. jobs.

Phone: 812-377-5000

Diesel engines are likely to be the least polluting source of transportation power, when total environmental impact is considered, and diesel engines are the most fuel-efficient transportation engines known. Carbon dioxide is generated when any fossil fuel is burned, so diesel engines contribute much less carbon dioxide (greenhouse effect) than other transportation engines, by using less fuel to do the same amount of work. In fact, due to this same fuel-efficiency advantage, modern diesels are beginning to be regarded as a preferred "green" transportation power source in Europe, since they produce less total emissions (carbon dioxide, oxides of nitrogen, unburned hydrocarbons, and particulates) than any other transportation engine. Even though this is the case, we are still far more concerned about oxides of nitrogen and particulates in the U.S.. Over the past 2 years we have been aggressively investigating effects of diesel fuel chemistry changes and innovative aftertreatment concepts for control of particulates and oxides of nitrogen with very positive results. We now have scientific evidence to believe that technology can be developed to produce diesel engines that are cleaner, more fuel efficient, more durable, and more commercially effective than any other transportation power source for at least the next twenty years. However, much engineering work remains to be done to develop and implement these technologies.

Cummins also believes that modern diesel engines should be viewed more broadly as very efficient high pressure combustion machines, which can be further developed to efficiently burn a wide variety of alternative fuels. An advanced Cummins engine operated on natural gas has been certified in California at NOx levels 80% below current NOx standards and effectively no particulate emissions. If engines like this can be further developed to produce power levels and fuel economy comparable to the same engines operated on diesel fuel (a realistic prospect in our opinion) then alternative fuels are likely to achieve wide acceptance in the marketplace. This would further enhance our environment, our energy independence, and our trade balance.

As befits its position as the world's leading manufacturer of diesel engines (attached figures), Cummins is committed to continuous improvements in fuel efficiency and in the reduction of all harmful emissions. To achieve these goals, Cummins has invested heavily in its Research and Development facilities. In addition to our internal research and our work with the DOE Heavy Duty Transport program, we are working closely with several DOE National Laboratories, including Lawrence Livermore, Oak Ridge and Sandia. Collaboration with these institutions has enabled us to gain a more complete understanding of the fundamental science underlying the technical problems that we are addressing in our own laboratories. We are also working closely with the Environmental Protection Agency. We believe that Congress should invest to stimulate these developments, and should give strong integrating direction, so that the U.S. can expand its world leadership position in this key technology arena.

It is clear that more efficient use of non-renewable energy resources is critical to the economic security of our nation and that reduction of toxic emissions is important to the future health of our citizens. On the other hand, marketplace purchase decisions are usually based on shorter term performance and cost considerations. Thus we believe strongly that industry and government must work together to ensure that the long-term health and security of the nation is not compromised through the short term pressures of the market place. We further believe that Congress should be much more specific in striking a coordinated balance between energy policy and emissions policy. In particular, we support the recommendations of the Galvin Task Force for the Secretary of Energy Advisory Board. We strongly recommend that DOE "should organize itself to achieve greater integration among its applied energy programs, between these programs and industry, and between the applied energy programs and the basic energy research work performed at the laboratories," as advocated by the Galvin Task Force. Because the generation and conversion of power are significant contributors to atmospheric pollution, and because the technical attributes of higher fuel efficiency and cleaner exhaust emissions are quite difficult to produce simultaneously, we also recommend that "The integration of energy and environmental considerations should be a fundamental organizing principle for much of the Departments activities," as was also noted by the Galvin Task Force.

Much of the strength of the national laboratories is in their capabilities to carry out fundamental scientific diagnostics and construct computer models of complex processes, and in materials characterization. Along with the universities, they can also contribute through the discovery and evaluation of new processes and materials. Thus we agree with the Galvin Task Force recommendation that "The Department of Energy should move to strengthen its efforts in fundamental science and engineering, both at the laboratories and in the universities." We would strongly suggest that a major portion of this work should be devoted to fuel economy improvement and treatment and control of exhaust emissions from diesel and alternative fueled internal combustion engines in partnership with industry. We also feel strongly that the combined staffs of Lawrence Livermore, Sandia, and Oak Ridge National Laboratories who have been working in this area are by far the best in the world. Their work is of critical strategic importance to US jobs in transportation manufacturing and to the US balance of trade as impacted by export (or import) of durable transportation goods. We therefore strongly support the Galvin Task Force recommendation that "the national laboratories (be made) available to the entire government system as a powerful environmental technical resource". We also believe that vehicle (internal combustion engine) emissions and fuel economy technology would make an excellent theme or focus for a "Center of Excellence" within the laboratory system.

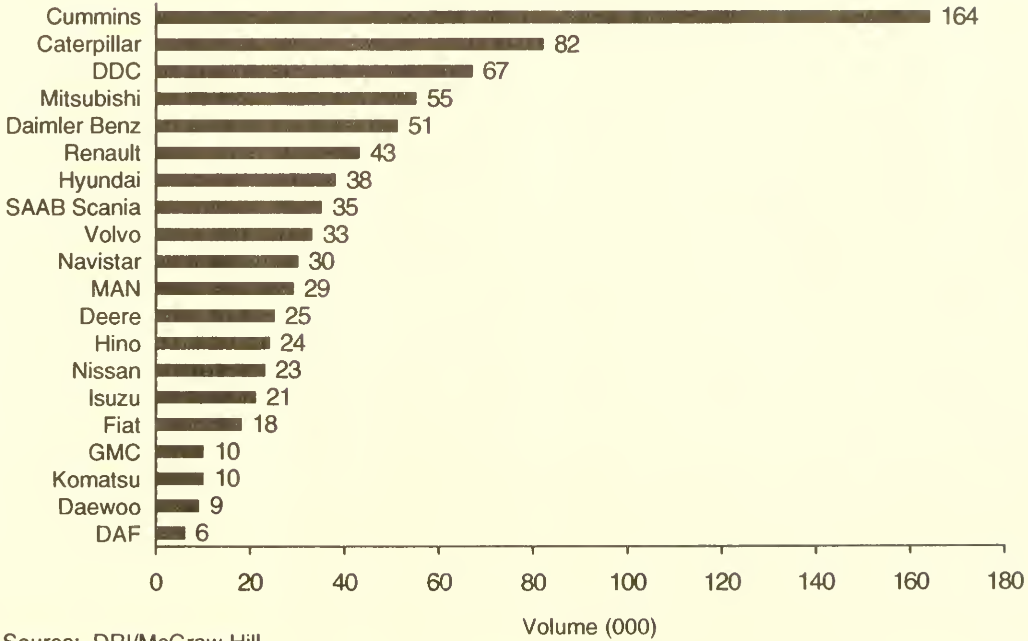
For all of these reasons, we recommend that Congress maintain the course set with the Energy Policy Act and fund a new Diesel Emissions Research thrust with the DOE Heavy Duty Transport Program. We also recommend that Congress link this program strongly to the capabilities at our National Laboratories. Such a program will produce real results on a year-to-year basis that can be understood and valued by every voter who is concerned about international competition, U.S. jobs, the cost of goods in the U.S., and the quality of our environment.

We look forward to continued interactions with the Department of Energy in working towards more efficient use of energy and reduced exhaust emissions in the U.S. transportation industry.

Sincerely,

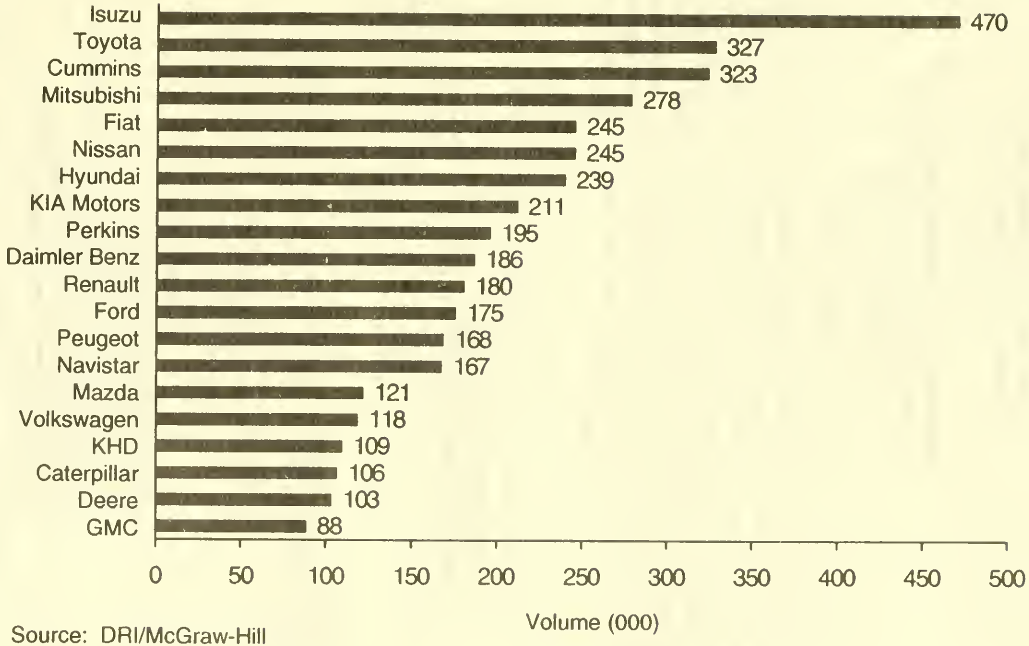
Dr. James W. Patten
Executive Director
Materials Engineering, Exhaust
Aftertreatment, Contract R&D

1993 Worldwide 200 HP+ Diesel Engine Production by Manufacturer



Source: DRI/McGraw-Hill

1993 Worldwide 50 HP+ Diesel Engine Production by Manufacturer



Source: DRI/McGraw-Hill

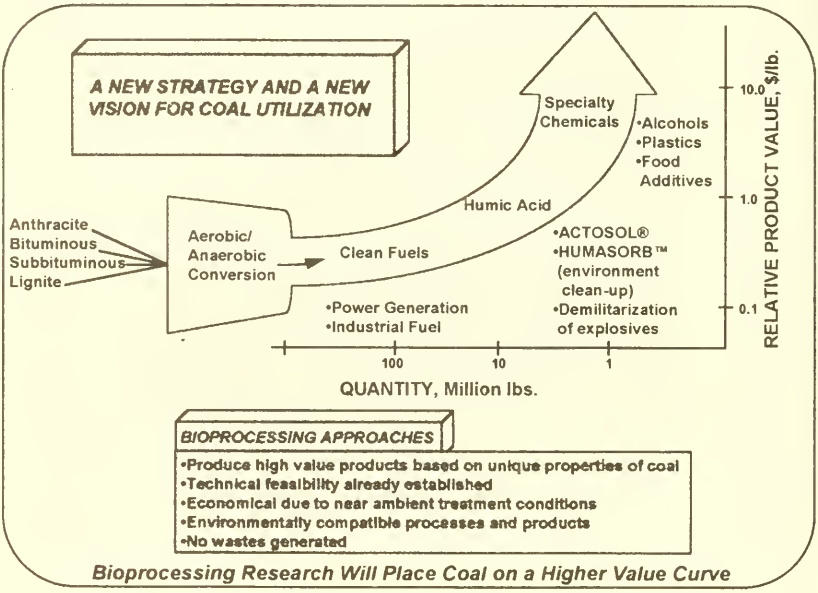
ADVANCED RESEARCH IN FOSSIL ENERGY: A NEW STRATEGY AND A NEW VISION

Testimony of Dr. Daman Walia
President and CEO, ARCTECH, Inc.
Submitted to:

House Interior Appropriations Subcommittee
U.S. House/B-308 Rayburn House FY 1996
Washington, DC 20510

March 17, 1995

The federal government has played a critical role in advancing clean-coal technology needed to use the nation's vast coal resources in an environmentally acceptable manner Except for the government program, coal research is virtually non-existent due to continuing low energy prices and the short term focus of the coal industry Coal has not had industrial funded institutions such as the Electric Power Research Institute and the Gas Research Institute. Therefore, the federal program was created to develop advanced coal technologies. The nation requires a continuing effort to fully develop clean energy from coal using federal and industry collaborative efforts It also needs a new focus to produce higher-valued products from coal to meet future environmental and other market needs as depicted below.



- •Produce high value products based on unique properties of coal
- •Technical feasibility already established
- •Economical due to near ambient treatment conditions
- •Environmentally compatible processes and products
- •No wastes generated

Bioprocessing Research Will Place Coal on a Higher Value Curve

ARCTECH, Inc
14100 Park Meadow Drive, Chantilly, VA 22021
(703) 222-0280

Coal is our most abundant fossil fuel resource This resource is distributed in several regions, and the economies of these regions depend upon continued exploitation of this vital resource Since the oil embargo of the 1970's, there has been considerable interest in expanding the use of coal, especially to decrease our dependence on imported oil. U.S coal production is currently about one billion tons per year and is primarily utilized for power generation However, this production rate is well below the in-place production capacity which is estimated to be over one and a half billion tons per year Thus, the coal regions and coal based industry remain stagnant and continue to face chronic high unemployment and depressed economics

To more fully use the coal potential and enhance its economic competitiveness, will require a new strategy that specifically extends coal applications to the production of high value non-fuel products along with clean fuels This will require a separate program thrust away from the applications of German technological approaches that use hydrogenation and partial oxidative gasification to convert various U.S. coals into clean liquid and gas fuels. The federal research program has made significant contribution in the deployment of clean coal technologies, but now is the time to take a new approach based on the biological processing of coal

The new coal research strategy is focused on producing higher value products for agriculture, environmental cleanup, therapeutics, and specialty chemicals along with clean fuels This strategy is similar to the oil refinery technology which enables production of a myriad of high-value products and fuels In a similar manner, the new bioprocessing research will provide higher value products from coal, especially based on the unique properties of coals

ARCTECH is already producing humic acid from coal for agricultural applications. Properly blended, the humic acids are the basis for our commercial soil enhancement product known as ACTOSOL®. This commercial product is distributed to individual users near its point of production in Northern Virginia, and in bulk to larger users located throughout the United States and overseas. Extensive tests of the commercial ACTOSOL® product were completed in Saudi Arabia in 1994 Customers report increased yields of alfalfa of 50 percent and corresponding increases in net profit Similar favorable results with a wide variety of plants were achieved, leading to plans to supply increasing quantities of product to Saudi Arabia for use in that country and throughout the Gulf States.

The United Nations Food and Agriculture Organization (UNFAO) in a recent report, has raised serious alarm due to accelerating soil loss worldwide Their report states that 25 billion tons of topsoil is lost worldwide per year, due to natural and man-made activities. In the U.S alone, the loss is reported to be 6 billion tons per year UNFAO is stating that this loss of topsoil will seriously hinder our critical need to continue to increase food production, especially for the rapidly growing world population Coal-derived humic acid products can reverse this trend by providing the organic matter needed to maintain the fertility of our soils. Thus, this need presents a significant opportunity to utilize our vast resources of coal, and create economic growth for our industry

ACTOSOL® is only one successful effort to produce higher-valued products from coal. Coals have high ion exchange and adsorption properties and thus have the potential to provide cost effective materials for environmental cleanup ARCTECH is already under contract to the DOE to explore the use of humic acid to clean up water contaminated with organics, metal, and radionuclides - all in a single pass through the material we call HUMASORB™ But much more work needs to be done Directed basic and applications research is needed

The federal government is critical in fostering integrated research, and leading the visionary goal, as no one industrial organization has the resources to devote long term sustained research effort to accomplish this objective The federal government support will not only enable the enhancement of our domestic coal industry, but also enable the maintenance of a leadership role in capturing growing international coal technology markets

We request that funds be appropriated in the FY96 for the DOE/Fossil Energy to initiate a modest but focused program for advanced bioprocess research The funding should be at a level of about $5 million in the first year. Incremental increases will be required as the effort is sustained over at least five years, at which point the entire program should be assessed. The research should be targeted on the development and demonstration of bioprocessing approaches aimed at the production of higher-valued products from the nation's vast coal resource base

March 24, 1995

TESTIMONY OF
THE NATIONAL ASSOCIATION OF ENERGY SERVICE COMPANIES
before the
HOUSE SUBCOMMITTEE ON INTERIOR APPROPRIATIONS

The National Association of Energy Service Companies (NAESCO), a trade association of energy service companies (ESCOs) and their utility and manufacturing allies, appreciates the opportunity to submit the following testimony to the House Subcommittee on Interior Appropriations.

EXECUTIVE SUMMARY

Beginning with the 1985 Omnibus Budget Reconciliation Act, the Congress recognized the Federal budget savings achievable through energy efficiency improvements in Federal buildings and supported the widespread use of energy savings performance contracts with private sector energy service companies to capture those savings. Yet, ten-years later, and three years after enactment of the bipartisan 1992 Energy Policy Act (EPAct), American taxpayers still are being denied those energy and budget savings, currently estimated at $1 billion annually.

The Department of Energy's (DOE) Federal Energy Management Program (FEMP), including the Energy Savings Performance Contracting (ESPC) initiatives and the Regional Energy Action Project Teams (REAP Teams) will foster the procurement infrastructure necessary to support widespread private investment in energy conservation in Federal facilities through energy savings performance contracts. Similarly, the Technology Introduction Partnership in DOE's Building Energy Division is fostering collaborations with the private sector to provide the Federal Government direct access to new technologies introduced through the private sector. NAESCO, therefore, supports full funding for these programs.

The Federal Government, the single largest consumer of energy in the United States, currently spends approximately $4 billion per year on energy costs in buildings that it owns and leases. Performance based energy efficiency improvements can save the Government approximately $1 billion per year in energy costs alone. Private sector investments to bring about the efficient use of energy in Federal facilities will enable taxpayers to realize this savings at no added cost to the Federal budget because the funds for the capital investments in energy efficiency equipment are furnished by private sector ESCOs. In addition, with ESCO investments, energy consumption reductions and cost savings are proven and reported based on monthly measurements.

The enormous potential for reaping the benefits of energy efficiency investments throughout the economy is reflected in the DOE Rebuild America and EPA Energy Star Building initiatives contained in the United States' Climate Change Action Plan. However, these are voluntary private sector initiatives. For our nation to realize fully the potential these programs represent, the Federal sector must make a comparable institutional commitment on behalf of American taxpayers.

The FEMP ESPC and REAP Team programs and the Technology Introduction Partnerships represent a Federal sector commitment to energy conservation that provides a net budget benefit to U.S. taxpayers since their purpose is to facilitate private ESCO investments in Federal buildings, through ESPCs, in order to reduce the energy consumption and therefore the dollar cost of running those buildings. Within the next month, DOE will publish its final regulations to govern ESPCs. Enactment of these regulations will enable private ESCOs, working through the FEMP programs, to develop the public-private partnership that the Congress envisioned ten years ago.

LEGISLATION AND POLICY

The Congress has made the efficient use of energy a priority component of the United States' national energy policy. Section 152 of EPAct sets energy use reduction targets for Federal agencies and authorizes Federal agencies to enter into ESPCs with private companies to achieve those targets. In Executive Order 12902 the President reinforced the Congressional mandate to Federal agencies to implement energy conservation by leveraging private funds through ESPCs.

Past procurement issues and a shortage of trained Federal energy managers dedicated to assisting in the implementation of private ESCO contracts effectively have barred widespread project development to upgrade the energy efficiency of Federal buildings. Therefore, to date only a very small number of privately funded energy efficiency upgrades have been completed in Federal facilities.

Over the past two years, however, the DOE Office of Conservation and Renewable Energy has demonstrated leadership and initiative in the effort to open the Federal market for private energy conservation investments. In addition, during the past two years, NAESCO has worked extensively with DOE and the Congress to help ensure that the regulations issued by DOE under the 1992 Energy Policy Act, as well as the FEMP Energy Savings Performance Contract and Regional Energy Action Project Team programs will provide the appropriate structure for attracting private investments in Federal facilities. Given these efforts, NAESCO believes that the specific budgetary support sought by DOE for these initiatives represents the level of institutional support needed to create a public-private energy conservation partnership. Furthermore, these programs are self-funding since the amount saved given the level of energy savings that will be generated will be greater than the cost of these initiatives.

HOW ENERGY SAVINGS PERFORMANCE CONTRACTS WORK IN FEDERAL FACILITIES

Energy service companies finance and install energy efficiency measures for energy customers and utilities. ESCOs install energy efficient lighting, motors, HVAC and other energy conservation measures in their customers' facilities at no up-front investment cost to a customer, such as the Federal Government. As a result, the building owner or occupant benefits from reduced energy costs, while enjoying an upgraded facility. The utility frees up existing energy capacity that can be sold to new customers, while avoiding investments in new generating capacity. Where efficiency investments are made by ESCOs through energy savings performance contracts, the consumption and cost reductions are proven continuously, based on monthly measurements, thus ensuring that energy consumption and cost reductions are real.

Under an energy savings performance contract, the investment in conservation equipment can be financed entirely by the private, non-government ESCO, who is repaid out of a portion of the customer's savings over the life of a contract that can be in place for up to 25 years. Where a utility demand side management program is in place, the utility incentive payment also is applied to buy down the capital cost of the project. ESCO contracts usually provide, in addition, for the maintenance of the conservation measures by the ESCO at no additional cost to the customer, since the maintence costs are factored into the overall cost of the project.

While only a small number of Federal projects currently are in place, those projects already are generating substantial savings for U.S. taxpayers. For example, at the U.S. Army Base at Fort Shafter, Hawaii, a $13.5 million private ESCO investment in lighting upgrades, chillers, condensing units and water conservation is producing a savings of $1.27 million per year on energy costs. At the U.S. Army Base at Fort Polk, Louisiana, an $18.5 million private ESCO investment in lighting upgrades, HVAC and water conservation will save taxpayers a projected $2 million annually on energy costs. At the U.S. Army Base at Corpus Christi, Texas, a chiller replacement is saving taxpayers $361,541 per year. Other installed projects are providing similar savings. Unfortunately however, the Federal Government is realizing only a small fraction of the energy cost savings available through private energy conservation investments in Federal facilities. DOE initiatives like Energy Savings Performance Contracting, the Regional Energy Action Teams and the Technology Introduction Partnerships will help to make energy cost savings such as those cited above readily available in a broad range of Federal facilities.

ESCOs ARE RENOVATING THE PUBLIC AND PRIVATE U.S. BUILDING STOCK TO PRODUCE AN ENERGY EFFICIENT INFRASTRUCTURE.

The U.S. energy market is moving away from its traditional monopoly structure and cost of service regulation and into a market characterized by open competition among all participants. At the same time, energy efficiency retrofits, funded and carried out by private sector ESCOs, are producing one of the most energy efficient building stocks in the world.

ESCOs typically are small to medium sized entrepreneurial companies that produce numerous new jobs, not only within their companies, but through the use of contractors and through the countless other firms involved, directly and indirectly, in supporting energy conservation projects. For example, the ESCO industry has spawned a new group of firms that specialize in providing the hardware and software used in measuring energy savings. Our industry experience is that approximately one-third of the money invested in ESCO projects is applied to labor costs. Thus, out of the estimated $1 billion of installed projects to date, ESCOs have generated approximately $350 million in direct labor employment. In addition, the energy efficiency technologies installed by ESCOs are primarily U.S.-produced, providing an added stimulus to the U.S. economy. Energy service companies thus support American manufacturing and stimulate job growth while enhancing the competitiveness of U.S. industry by reducing the operating costs of the nation's buildings, and manufacturing facilities and processes.

Within the United States' economy, residential and commercial buildings consume one-third of all primary energy and 65 percent of all of the electricity we produce. By investing in energy efficiency, we can capture more than 25 percent of this energy for use elsewhere within our economy. If the same amount of capacity for energy production were to be provided from the construction of new electric power plants, it would require 80 1,000 megawatt plants with their attendant environmental impacts and siting concerns. Through energy efficient improvements in existing buildings we can free up this existing energy supply for other purposes while creating 345,000 new jobs and reducing carbon emissions by 72 metric tons annually.

A recent macroeconomic study demonstrates that by meeting a 2010 energy use reduction target of 30 percent, the U.S. will reduce annual electricity generation by 27 percent and decrease the need for the construction of new generating facilities by over 50 percent. U.S. electricity customers will enjoy an 18 percent overall reduction in their electricity bill (a savings of $50 billion), while electric sector emissions of carbon dioxide and oxides of nitrogen will be reduced by 33 percent and 12 percent respectively. These lower costs for energy, available through private energy efficiency investments, will enable U.S. consumers to increase their annual consumption of non-electricity goods and services by $45 billion. ("DSM and the Broader Economy," Edward Moscovitch, The Electricity Journal, May 1994.)

Private ESCO investments in Federal facilities offer a key vehicle for the Federal Government to capitalize on these opportunities and to procure cost effective energy efficiency upgrades in its buildings.

IF THE FEDERAL GOVERNMENT ACTS NOW, IT CAN REDUCE THE ENERGY COSTS BORNE BY AMERICAN TAXPAYERS.

The FEMP ESPC and REAP Team programs create a win-win budget initiative for the Federal Government and the U.S. taxpayer, since they are designed to reduce the energy consumption and therefore the dollar cost of running Federal buildings through the use of private ESCO investments to upgrade those buildings through energy savings performance contracts. In addition, as noted, these initiatives are self-funding. A decision by the Congress to delay funding for these programs would deny the Federal Government the long term budget gains that can be achieved through private energy efficiency investments in Federal buildings, and would harm small and medium-sized businesses. In order for our nation to realize fully the potential energy and cost savings these programs represent, the Federal sector must make a commitment on behalf of American taxpayers comparable to that being made by the private sector and by state and local governments.

A small number of Federal show-case buildings is not sufficient. The Federal Government must make a concerted effort directed at capital renewal in Federal facilities and leveraged with private sector financial investments. This can be achieved through the use of energy savings performance contracts provided by the private sector. Federal budgetary support is needed to enable the private sector to negotiate these contracts with the Federal Government on a broad scale. In the process, the Federal government can rely on the marketplace to stimulate the creation of an infrastructure capable of delivering energy efficiency improvements within state and local communities long after the Federal projects are completed.

16 Bellflower Rd.
Ballston Spa, N.Y. 12020

March 20, 1995

The Honorable Ralph Regula, Chairman
House Interior Appropriations Subcommittee
U.S. House of Representatives
Washington, DC 20515

Dear Representative Regula:

In request of appropriating funding for the National Association of Plumbing - Heating - Cooling Contractors (NAPHCC) in specific to the Thermal Distribution Coalition, I ask this letter be placed in the hearing record for the March 24, 1995 Interior Appropriations Hearing.

The industry need for a broad based national standard for evaluating heating and air conditioning distribution systems is long overdue. As the Heating, Ventilating and Air Conditioning (HVAC) industry changes it is coming into line and conformance to new standards for the Clean Air Act, Indoor Air Quality and maintaining the high efficiencies now being engineered into the equipment. In keeping up the equipment or installed systems high efficiency, the distribution system is one the major components that can either positively help maintain system performance, efficiencies and quality or dramatically deteriorate these.

Case studies have been completed by organizations showing the millions of dollars in energy a year wasted in the U.S. due to improper distribution design, installation, or application. Many utilities have promoted HVAC distribution repairs thru Demand Side Management programs. These have been effective, but on a limited scale. If all HVAC distribution system installations residential, commercial and industrial had to meet energy efficiency standards there could be millions more dollars saved per year. Every occupied structure in the U.S. has to have some type of HVAC system. As techniques are improving for building more energy efficient structures, the mechanicals of the structure should keep pace. For you pay energy bills every month to heat, cool or ventilate these.

Thru funding received, NAPHCC can provide a driving force for the industry in educating the dealers, contractors, installers and public sector on the importance of providing quality energy efficient distribution installations.

Thank you for your consideration in this matter which will be beneficial for all associated.

Sincerely:

David Phillips

FUNDING FOR NREL EXEMPLARY BUILDING PROGRAM March 9, 1995

by Gary Watrous, AIA
Watrous Associates Architects
2711 W. Main St.
Louisville, KY 40212

We wish to testify in support of continued funding for the excellent Exemplary Buildings Program run by the National Renewable Energy Laboratory (NREL). Our firm is a participant in this program. We believe it is of great importance that funding for this program be continued. We have had only good experiences working with NREL and believe this is unique national laboratory must also receive continued funding for its important alternate energy research projects to assist in the future energy security of the United States.

As President of Watrous Associates Architects, PSC, we have done more passive solar buildings then any one else in the Louisville region (approximately 30 projects including churches, office buidings, and daycare centers). Our Sun/Earth Homes typically heat and cool for $300 per year. These designs have been created using the national Guidelines book which was developed with federal funding to Dr. Balcomb at NREL with the support of the National Home Builders Association and the Passive Solar Industries Council. Our designs have been selected to appear In the publication of the the Kentucky Energy Office intitled Energy-Efficient Home Plans.

The Exemplary Buildings Program provides important examples to both building producers and consumers. Builders and contractors, in general, are very conservative because their business is extremely risky and very competitive. The ways of loosing money during the construction of any project are considerable. This reality has created a group of producers who are understandably skeptical of new ideas or ideas which they have not built before. They are prone to repeat designs and construction techniques with which they are familiar, know how to build, and know how to price — and which have been profitable before.

Secondly the home-building industry is driven by market demand. If a home- builder cannot sell a house and make a profit he is not going to build that particular model. Whether or not a particular model sells is in direct response to the knowledge, and expressed wants and needs of the buying public. Unfortunately in our region of the country, most people don't realize that compared to a conventional home, super-insulated passive-solar homes, at almost no additional construction cost, can save substantial energy dollars on their annual heating and cooling bills. Our Sun/Earth homes, designed according to NREL guidelines, save homeowners at least $1,0000 per year, compared to a conventional house the same size.

Therefore, the conservatism of the homebuilder coupled with the lack of market demand, caused by lack of knowledge and experience on the part of the buying public, causes stagnation in the research, development, and production of energy - conserving houses that would assist in reducing national energy consumption.

Both consumers and builders need such examples because they have a "show me" attitude when it comes to innovative, energy-conserving houses. This is partially due to the well advertised failures of houses in the early 1970's prior to national energy standards developed by Dr. Balcomb. In our area, much bad publicity for solar was caused by fly-by-night sales people who made false claims to homeowners that they could heat their entire home with two roof-top collectors. And often such companies went out of business after energy subsidies disappeared.

CONCLUSION

To break this impasse, both the public and builders need examples of functional, beautiful and marketable buildings that are proven highly energy-efficient. These examples need to be tested by a credible agency to determine their energy performance. Not only should this agency calculate the energy performance prior to construction but it should do careful follow-up testing of the house after construction. Finally, information about these exemplary buildings need to be widely disseminated to the public, architects and builders through various trade journals and popular magazines. All this is exactly what the Exemplary Building Program does! Such a program is best run by a respected national agency funded with federal dollars.

The need for national standards for design and testing of energy-efficient homes and building can not be over emphasized. National standards are necessary in order to secure the confidence of both the public and builders. I would like to see NREL funded for additional research vital to increasing the energy efficiency of commercial, industrial, and institutional buildings. Such research and development can best be done by a nationally and internationally respected testing laboratories like NREL. And funding for such research, development, and testing should come primarily from federal funds, because state or local funding of such efforts would not likely lead to sufficient or credible results.

The path of energy-efficiency leads to a stronger, more competitive, and more employed America.

NATIONAL SECURITY

It is beyond the scope of this paper to discuss the importance of energy-efficient buildings design for the national security of the United States. But since about a *third of our national energy is consumed by our buildings,* the energy-efficiency of our nation's buildings should be a top priority for national security. Even if we don't include the cost of fighting wars for foreign oil , (such as the Persian Gulf War) any drastic change in the cost of energy could destabilize our economy. And the inevitable increase in the cost of conventional energy sources make development of alternate sources crucial for the future well-being of our country. What we need is a "made in America" product such as super-insulated passive-solar buildings that can both produce and conserve energy with minimal impact on air pollution and the environment. To continue to search for more efficient buildings is a worthy goal of the federal government and the expenditure of federal funds to proven agencies such as NREL and their vital tasks such as the Exemplary Buildings Program.

Statement
of the

AMERICAN PUBLIC POWER ASSOCIATION

Submitted to

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

March 29, 1995

The American Public Power Association (APPA), the national service organization representing more than 1,750 local, publicly owned electric utilities throughout the country, submits this statement concerning FY96 appropriations to the House Committee on Appropriations, Subcommittee on Interior and Related Agencies.

U.S. DEPARTMENT OF ENERGY PROGRAMS

A. Energy Efficiency Research and Development

APPA fully supports the Administration's FY96 budget request of $890.6 million for DOE's energy efficiency programs, and urges this Subcommittee to view the budget request as the minimum needed to ensure that energy efficiency becomes part of the full range of resource options available to this nation's electric utilities as they meet increasingly stringent economic and environmental requirements placed on them by the marketplace and society.

APPA is concerned with proposed wide-ranging rescissions of $58.4 million of the FY94 and FY95 DOE budget for energy efficiency. DOE's office of energy efficiency and renewable energy must comply with regulatory requirements resulting from implementing the Energy Policy Act of 1992 and contractual commitments of the Climate Challenge Program. While the rescission of the unspent FY 94 budget of $13.7 million for a steel making demonstration may be justified, the cut back of $44.7 million in FY95 funds is unreasonable. Programs proposed for rescission, such as weatherization assistance and Rebuild America, will be severely restricted in their efforts.

While DOE has made major progress in implementing energy efficiency for the nation, major opportunities still exist to improve efficiency and increase productivity. Recently DOE has introduced exciting, major initiatives to partner with industry to realize energy efficiency nationwide. These initiatives respond to the full range of end users of energy, and include Rebuild America, improved building codes, high-efficiency appliances, affordable homes partnerships, cool communities, motor challenge, NICE3 grants, climate challenge, integrated resource planning, and methane recovery. DOE has done an excellent job communicating these programs to the public, and should be commended for both its innovation in developing industry-government partnerships as well as the excellent job it has done to clearly communicate these programs to industry and the public.

DOE's new operating principles are on-target with industry needs. Such principles include engaging voluntary partnerships with clients, leveraging non-federal sources of funds and existing infrastructure, designing market-driven, flexible programs, minimizing federal involvement, demanding program results for visible accountability, and achieving a high rate of return.

APPA recommends the following levels for DOE's energy efficiency budget: $134.1 million for Building Technologies; $185.8 million for Industrial Technologies; $300.5 million for Transportation Technologies; and $322.2 million for Utility Technologies. Furthermore, APPA recommends funding of $376.8 million for the Office of Technical and Financial Assistance Programs, particularly $229 million for the Weatherization Assistance Program and $24.7 million for the State Energy Conservation Program.

The following are specific initiatives that APPA recommends:

Advancement of Integrated Resource Planning in Public Power Utility initiative - With the mandatory integrated resource planning (IRP) requirements in EPACT on the Tennessee Valley Authority and the utilities served by the Western Area Power Administration, all consumer-owned utilities are directing their attention to IRP. As a result, a consumer-owned utility/power marketing administrations IRP initiative has formed, consisting of four Federal power marketing agencies (Bonneville Power Administration, Western Area Power Administration, Southwestern Power Administration, and the Southeastern Power Administration), the Tennessee Valley Authority, APPA, and the National Rural Electric Cooperative Association (NRECA), and the Rural Utilities Service. Together, the consumer-owned utilities represented by these groups reach one in four Americans. The goal of this coalition is to maximize the use of IRP at the nation's publicly owned and cooperatively owned utilities within five years.

The project is unique since it: 1) takes advantage of economies of scale, 2) avoids duplicative efforts, and 3) involves a voluntary approach that partners the power marketing administrations and the two trade associations representing all consumer-owned utilities with DOE. It will also offer the opportunity for DOE to work closely with consumer-owned utilities to ensure widespread adoption of integrated resource planning.

A five-year effort is envisioned to reach the majority of consumer-owned utilities. The project consists of five components: 1) education and training, 2) planning support, 3) implementation, 4) financing, and 5) regulatory. APPA requests this Subcommittee direct that $1 million of the $10 million IRP budget request from the Office of Utility Technologies be for this voluntary initiative. APPA and NRECA are providing in-kind resources to this joint initiative.

Integrated Resource Planning Training - The smallest consumer owned utilities are generally the ones in greatest need of education and training, yet they also are the most limited in staff and budget. In FY95 DOE initiated the IRP Training Voucher Program, making such training available to state energy offices, public utility commissions, and the smallest publicly and cooperatively owned utilities. For the utility sector, much of the funding must be cost-shared. This multi-year effort will enhance greatly the capabilities of these smaller utilities, preparing them for an increasingly competitive utility industry. APPA looks forward to continuing this multi-year effort so that the nation's consumer owned utilities will consider the full range of supply- and demand-side resources in their long-range resource planning and selection. APPA recommends that funding for the program be increased to $0.8 million in FY 96 so that many more persons from state regulatory agencies, state energy offices and smaller publicly and cooperatively owned utilities can be served. The gains far outweigh the Federal contribution, and is an appropriate Federal role. Furthermore, the contributions to IRP efforts assist the resulting efficiency programs by consumer-owned utilities and significantly leverage the Federal funds.

Climate Change Action Plan Activities in the Office of Building Technologies - APPA strongly supports the shift in focus of DOE's Office of Building Technologies toward working much more closely with market participants to improve energy efficiency. A budget request that emphasizes partnering with the market represents a new way of doing business for both DOE and energy users -- something that this Subcommittee and Congress should commend and fully support.

APPA is particularly pleased with the direction taken by DOE to improve energy efficiency across the United States. DOE has adopted a market-based approach and has laid the groundwork with industry partnerships that will result in significant energy savings and financial benefit to the nation. The chief drivers for DOE's FY96 budget request are threefold: 1) A desire to preserve and foster U.S. jobs; 2) the Energy Policy Act of 1992 (EPACT) and 3) implementation of the Climate Challenge program, a joint industry-government initiative that resulted from the President's 1991 Climate Change Action Plan. Working in close partnership with DOE, electric utilities nationwide have voluntarily committed to reducing emissions of greenhouse gasses by more than 40 million metric tons. These agreements, signed between dozens of utilities and DOE, took two years to develop. They require both industry and DOE to make major commitments to reduce greenhouse gasses in accordance with the United States' international agreement known as the Rio Treaty. Any reduction in funding for DOE energy efficiency programs seriously jeopardizes these contractual relationships.

The Administration's budget request includes a $78.5 million increase to fund new EPACT and Climate Change Action Plan programs that are structured to produce results in the marketplace. Included is $41.5 million in expanded Outreach Programs that directly work with industry and utilities; and $37 million of market-pull activities, such as Cool Communities, Home Energy Rating Systems/Home Energy Efficient Mortgages, Rebuild America, and several programs modeled after EPA's highly successful Super Efficient Refrigerator Efficiency program.

Also included is a requested increase of $14 million in support of improved state energy efficient building codes. The experience of APPA's member electric utilities shows that tighter building codes are very effective in improving new construction energy efficiency -- thus avoiding the expense of costly utility-sponsored programs targeted at the builder community. APPA strongly urges this Subcommittee to fully fund these new success-oriented Office of Building Technology initiatives at the Administration's requested level.

Community Energy Systems - Community energy systems (CES) supply thermal energy to buildings in the form of chilled water, hot water or steam, and provide opportunities to productively use energy which would otherwise be wasted, such as untapped heat from power plants. CES can significantly improve urban and regional air quality as well as address the environmental concerns such as climate change. CES stimulate local economies through urban infrastructure development and help attract and retain businesses in the urban core. However, development of these systems faces significant informational and institutional barriers, with much of the policy, planning and regulatory framework affecting CES development occurring on the state and local level. Funding of $2.0 million for technical assistance would help state and local governments, electric and gas utilities and others understand the benefits of CES and how to facilitate the implementation of this energy-efficient infrastructure.

Municipal and Community Energy Management - This program within the Office of Technical and Financial Assistance provides funding to municipalities for conducting a variety of projects that address energy-related areas of greatest concern on a local level. APPA recommends this program be funded at a level of $1.8 million for this Urban Consortium project. This program is highly leveraged with municipal funds.

Weatherization Assistance Program - Weatherization programs provide long-term solutions to the problems of high energy bills and decreasing excess generation capacity by enabling households to heat and cool more effectively with less energy consumption and allowing the unused energy to be used elsewhere. Weatherization programs have the additional benefits of stimulating economic growth by increasing disposable income and creating jobs in the service sector. These programs, extremely successful in the past with limited funds, serve a vital function -- assisting low-income Americans that have difficulty paying their fuel bills. The DOE Weatherization Assistance Program has been shown to be especially effective at allowing low income citizens to afford their energy bills, while at the same time reduce their energy usage. Funding of $229 million should be provided to this valuable program to alleviate the multi-year backlog of weatherization work that has been requested locally. The Weatherization Assistance Program is especially important to the working poor, elderly and disabled, and helps more than 100,000 residences annually.

State Energy Conservation Program - State energy offices work on nearly every issue relating to direct implementation of energy efficiency. These offices have been extremely successful in their work identifying the needs of local communities, businesses and consumers, and funding appropriate efforts to effectively transfer technology to constituents. Moreover, with increased emphasis on giving greater responsibilities to the states, this program offers the ideal combination of state-level implementation on a flexible basis with federal support. The work of state energy offices includes technology development, energy efficiency, renewable energy, alternative fuels, energy emergency preparedness, energy facility siting, recycling, transportation efficiency programs, energy/environmental issues, and energy/economic development issues. Planning and education have been central activities. Funding for the State Energy Conservation Program should be increased to $24.7 million, especially in light of the fact that for every Federal dollar invested, $19 of state, local and private sector funds are leveraged.

B. Fossil Energy Research and Development

Fuel cells promise a clean, modular, and efficient form of power generation. APPA recommends Congress provide full support for the two U.S. molten carbonate fuel cell developers recently selected by DOE for a five-year, cost-shared commercialization program. A utility consortium, including many members of the American Public Power Association and the National Rural Electric Cooperatives Association (NRECA), along with the Electric Power Research Institute and DOE, are co-sponsoring carbonate fuel cell research, testing, and the first utility-scale demonstrations of carbonate fuel cell power plants. Construction began on a 2-megawatt demonstration, located in Santa Clara, California, on April 7, 1994. A second molten carbonate 250-kW demonstration is also underway at a UNOCAL facility in Santa Monica, California. That project had its ribbon-cutting in December 1994. Both projects are progressing well and both are expected to start up in 1995.

Our organizations have been major supporters of molten carbonate fuel cell R&D, participating in the majority of the cost-shared contracts between the two developers and the DOE. We are extremely concerned that the important next steps to commercialize these plants are in danger because the funds provided in the President's Budget Request are insufficient to sustain the commercialization plans we have identified. Our utility members have an important stake in these successful demonstrations. The two DOE contracts call for $42.4 million in FY 1996, yet the budget requests only $28.5 million. APPA asks that the subcommittee restore the shortfall, $14.2 million, for a total of $42.4 million for molten carbonate fuel cells.

The current request provides only $14.2 million for each contract ($28.5 million total) while the two separate contracts with DOE calls for approx. $42.4 million in FY 1996, a $14.2 million shortfall.

Statement of
Gene De Boef
Vice President of Research and Engineering
Pella Corporation
before the
Subcommittee on Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives

Mr. Chairman and Members of the Subcommittee, I am pleased to submit the following testimony written in support of the U.S. Department of Energy's windows and glazings research and development program. This program was funded at $5.2 million in FY 1995 and the President has requested $7.6 million in FY 1996. I would also like to commend the Subcommittee and DOE for funding the research and development program which is so vital to the window industry. DOE's research and development program has stimulated the industry to develop new and more energy efficient products. Future DOE research in the areas of electrochromics and "high R" superwindows will help revolutionize the building industry.

Pella Corporation is the manufacturer of Pella Windows and Door Products. We have three U.S. manufacturing facilities located in Pella, Carroll , and Shanandoah, all towns in the state of Iowa. These locations employ approximately 3500 hard working midwestern people dedicated to providing high quality, energy efficient products to consumers worldwide.

As the second largest window manufacturer in the U.S., Pella Corporation and its suppliers support the DOE research effort because we are committed to sound governmental energy and environmental policies. Energy efficiency is an important aspect of this country's future and we want to do our part by manufacturing highly efficient products. The building and window industries are very diverse with only a few really large companies. Therefore, product research is generally limited to incremental improvements rather than major technological advances in product technology. The DOE research program has helped the entire industry by affecting major product changes. DOE has worked with industry to organize the National Fenestration Rating Council (NFRC), which has established a voluntary, national energy performance rating system for windows, doors and skylights. NFRC, which is an industry, government, utility and consumer collaborative, has been successful in a venue that mandatory regulation would not have been. By working within NFRC, industry members have been able to adopt fair and accurate rating procedures that allow manufacturers to make factual product claims.

Pella Corporation is a charter member of, and an active member in, the National Fenestration Rating Council (NFRC). The Council's main job is to establish a viable, fair and accurate energy performance rating system for windows. Prior to the Council's creation, there was no industry-wide acceptance of existing rating systems. The consequence was often specious window ratings that misled the buying public. A manufacturer could make outrageous claims and the consumer would have no way of knowing whether the claims were true. In the five-plus years of its existence, NFRC has helped turn around the industry by providing manufacturers, both large and small, with a tool to accurately characterize their windows. To date, over 16,000 window products have received certified ratings and over half of those window types can be considered very energy efficient when compared to the most efficient products ten years ago.

Although DOE provided the seed money for NFRC, the members of the council have quickly assumed the funding burden. DOE's annual contribution of $200,000 is matched by over $800,000 from Council members and rating program participants. This industry cost-share does not include an unmeasurable amount in time and travel that the window industry has given to the Council's cause.

The DOE financial contribution to the Council is important, but not nearly as important as the technical assistance that DOE, its national laboratories and contractors provide to the industry. For example, Pella Corporation was a participant with DOE in a Superwindow development project in 1989. This project led to Pella offering several high R window options. Pella Corporation has also worked with Lawrence Berkeley Laboratory's MoWiTT facility to get data on the solar control effectiveness of venetian blinds. MoWiTT is an acronym for Mobile Window Thermal Test facility. MoWiTT is used by many manufacturers to test new ideas.

Pella also makes extensive use of LBL's WINDOW computer simulation program as the standard for publishing thermal properties data for windows. WINDOW allows manufacturers to model virtually any window, door or skylight configuration. Manufacturers can use WINDOW to determine the energy performance of a window system without having to physically test the system. This saves companies like mine thousands of dollars each year in development costs. Very important to governmental concerns the small manufacturer now have the ability to design new windows easily and at a fraction of the cost, as well. The WINDOW program is also used in the NFRC rating program to cut the costs of physical testing.

All of this research has been invaluable to Pella, and to the entire window industry. Partly through the efforts of DOE, the window, door and skylight industry is in the process of transformation. Window systems are more energy efficient than ever and we are seeing more and better products on the market at relatively small or no price premiums. Most, if not all, manufacturers are now offering energy efficient products to their clientele. And, unlike other parts of the building industry, the window industry has discovered that energy efficiency sells. As a result, you will see many manufacturers include energy efficiency as a main part of their advertising campaigns.

The industry is changing. The question that may cross your mind is will it continue to change and what is DOE's role? Pella believes that DOE continues to play an extremely important role in assisting industry. Two of its largest windows and glazing research projects include electrochromic windows and so-called super windows, those that have R-values of 5 to 10.

Pella supports DOE's Electro Chromic R & D and its Superwindow Collaborative. The goal of the Collaborative is to ensure that recent shifts towards the manufacture and specification of advanced windows is not only continued but accelerated. The technological foundation for this initiative were developed through DOE-funded R&D beginning with the development of low-E coatings in the 1970s, high thermal resistance (R3-R7+) superwindows and spectrally-selective (low solar heat transmitting) superwindows in the 1980s, and NFRC's "fair, accurate and credible" rating system for window thermal performance in the 1990s. The goal of this initiative is 90 percent sales penetration of superwindows by 2005 and 90 percent stock penetration by 2025.

In conclusion, I would like to reiterate that Pella Corporation supports the President's request for $7.6 million in FY 1996 funding for its windows and glazings program. I believe I can speak for most of the industry in saying that DOE assistance has been a major help to over the past fifteen years. DOE's continued support through its leveraged research and development programs will enable the industry to create much larger markets for windows, doors and skylights. This will benefit the consumer by allowing more glazing area in energy efficient homes with greater comfort levels and a more desirable living atmosphere. The country will benefit because of a more competitive industry both here and abroad, and because of the potential for energy and environmental savings. Greater sales for the window industry means more jobs for an industry that is uniquely American.

I am grateful you are taking the time to consider my remarks.

Statement of
Dr. Subrato Chandra
Director, Research & Development Division
Florida Solar Energy Center
before the
Subcommittee on Interior & Related Agencies
Committee on Appropriations
U.S. House of Representatives
March 30, 1995

The Florida Solar Energy Center (FSEC) supports continued funding for the Energy Efficient Industrialized Housing Research Program (EEIH) within the Office of Building Technologies of the Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy. This is an ongoing project that began with the objective of developing techniques to produce marketable industrialized housing that is more energy efficient than currently required by the most stringent U.S. residential codes, and at lower cost. The program is currently funded at $1,135,000 in Fiscal Year 1995.

The Florida Solar Energy Center is the energy research institute of the State University System of Florida. FSEC conducts state, federal and industry supported research in solar water heating, photovoltaics, energy use in buildings, indoor air quality, demand side management, solar detoxification, alternative fuels and transportation, and the production, storage and use of hydrogen. Additional programs involve education and training as well as information services for consumers. Building research at FSEC covers a range of projects designed to improve the quality and energy efficiency of residential and commercial buildings.

The EEIH program is a joint effort among FSEC, the Center of Housing Innovation at the University of Oregon, and the Department of Industrial Engineering and Management Systems at the University of Central Florida. Each partner makes a unique contribution to the project, that when combined will enhance cost-effectiveness and raise energy efficiency levels.

Because the nature of the building industry is to innovate through imitation, the EEIH project works to demonstrate how improvements are made, and then advertise successful innovations to the industry. Demonstrating the success of these innovation requires proof - hard data that can be acquired only through monitoring demonstrations in the field.

Such field monitoring is a major thrust of FSEC's work within the EEIH project. Our efforts in this area have been applauded by such industry groups at the Structural Insulated Manufacturing Association (SIPA), and extensively covered in such publications as *Popular Science, Fine Homebuilding* and *Energy Design Update.* Individual companies within the housing industry have cooperated with, and benefitted from EEIH field monitoring and technical assistance activities, as can be attested to by Acorn Structures, Inc., Ryland, Regional Building Systems, and Penn Lyon Homes.

FSEC is also providing field monitoring in a major project by Habitat for Humanity at Jordan Commons in Homestead, Florida - an area virtually destroyed by Hurricane Andrew. This 200-unit development is currently under construction using energy practices and products recommended by FSEC. We will be monitoring the energy performance of these new homes when they are completed and have already begun monitoring the energy performance of comparable, conventional Habitat homes for future comparison.

These monitoring activities are crucial to the success of demonstration programs. Continued evaluation of new technologies lends the credibility necessary for industry confidence to adopt techniques, methods and material that they have never used before. FSEC and UCF continue to work with IBACOS and other DOE-sponsored groups to evaluate the techniques under development in their programs. The interplay among these groups, each of which have complementary areas of expertise, significantly strengthens DOE's total residential energy-efficiency program.

Another major FSEC activity within the EEIH program is that of housing demonstrations. At FSEC, we realize that energy-efficiency, of and by itself, does not sell homes. However, if energy efficiency is part of a package that addresses other critical concerns, homebuyers get excited about the possibilities.

In 1993 FSEC identified three issues - indoor air quality, handicapped accessibility and exciting architecture - that, when combined with energy efficiency, could make an appealing, cost-effective package for buyers. Working within the EEIH program, we spearheaded design and construction of a high-visibility demonstration of this package. The result is the "Spirit of Today House," recently completed in Orlando and featured in a 12-page article in the October 1994 issue of *Better Homes & Gardens* magazine (circulation more than 7 million). To date, more than 200 orders have been generated for plans of this state-of-the-art house built with factory-made wall panels and trusses. Major industries, including Honeywell, Whirlpool, and Lennox donated products and services. FSEC is currently monitoring the performance of the house and its neighbors to document actual and comparative energy savings. We are fairly confident we will realize our goal of 50% savings.

This year, FSEC has teamed with the American Lung Association chapters of Hennepin County, Minnesota and Central Florida on two Health House™ projects. The Minneapolis project will retrofit a home which will be featured by *Better Homes & Gardens* in early 1996. The Orlando project, a new home, will be featured in *Professional Builder* magazine. The Orlando house will feature a novel central dehumidification system that supplies fresh, filtered air while maintaining interior humidity at 55% or lower. Combined with low emission floor coverings, paints, cabinetry and furniture, the technologies to be used in the house promise relief for the 30 to 60 million Americans - many of them children - who suffer from allergic rhinitis or asthma.

As we look to the future, we are excited about the possibility of intelligently designed, energy efficient housing that not only reduces energy bills, but also medical bills. We are confident that energy efficiency and health environments are a natural pairing.

Even when we build successful demonstrations that industry can imitate, it is still essential that we demonstrate not only "what" but also "how." That is the objective our EEIH partners at the University of Central Florida's Industrial Engineering department. Their focus is on what we call "constructability" - determining how to ease these innovations into current and future building practice.

Like other programs within DOE's Office of Building Technology, the EEIH project shares costs with industry whenever possible. The ratio of federal to private funds varies, depending on the project. In demonstration projects such as the "Spirit of Today House" and the Health House, industry invests heavily in construction and installation costs, while DOE provides the needed technical assistance. Other projects, which involve building diagnostics and modeling tools, are long-term activities with industry-wide impacts. While these activities are crucial to the success of energy efficient industrialized housing, they present little incentive for support from individual companies with tight budgets. Consequently, these activities are more heavily supported by DOE.

The Energy Efficient Industrialized Housing program yields valuable technology innovations that stand to improve the U.S. housing industry as a whole. These innovations would not have evolved without the leadership of Congress and the Department of Energy. Both large and small home builders and manufacturers function within an unstable and fragmented industry which precludes their investing in energy efficiency research. Home builders also work with many other trades and manufacturers; introducing any new design or product innovation into such an interdependent process takes time and significant effort. Industry partners that collaborate with DOE on projects such as EEIH gain credibility through their commitment because DOE represents the interests of the entire industry and the homeowner.

Thank you for this opportunity to represent the Florida Solar Energy Center's views on this topic.

Andersen Corporation

Statement of
Michael Koenig
Manager, Advanced Research
Andersen Corporation
before the
Subcommittee of Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives

Mr. Chairman and Members of the Subcommittee, on behalf of Andersen, I appreciate this opportunity to submit the following testimony in support of the U.S. Department of Energy's windows and glazing research and development program. I understand that this program was funded at $5.2 million in FY 1995 and the President has requested $7.6 million in FY 1996. I want to briefly explain why continued Congressional support for the windows and glazing program is important to Andersen, the nation's entire window and glazings industry and the nation's consumers.

First, let me tell you a little bit about Andersen. Andersen Corporation, headquartered in Bayport, Minnesota, is the market leader in manufacturing wood windows and patio doors and is nationally recognized for its innovative products. Founded more than 90 years ago, the company is committed to Minnesota and its local communities, and takes pride in its product and home safety leadership. Andersen supports continuation of the DOE research effort for many good reasons. First and foremost, Andersen strongly favors the development of technologies to cost-effectively save energy while improving consumer comfort. Andersen has been in the forefront of introducing such technologies in its marketplace and supports government research efforts to assist in the development of new technologies for the future. In addition, Andersen is firmly committed to improving the environment and has made substantial strides in incorporating recycling and other environmentally sound policies into its own manufacturing processes, as well as in offering products with a net positive impact on the environment. Andersen also believes that technologies that allow the introduction of more natural light into homes and businesses lead to far more healthy living and working environments (since more efficient windows allow builders to utilize more windows without sacrificing energy costs or comfort, such technologies allow more natural daylighting). By developing and transferring basic research to the private sector, government programs such as the DOE research enhance the competitiveness of large and small American businesses, create and sustain jobs and economic development, reduce dependence on depletable fossil fuels, improve the environment and encourage the most-widespread use of cost-effective advances in technology.

A good example of the effectiveness of DOE research in the windows area is the area of low-E coatings. Low-E coatings have revolutionized window energy performance. Low-E coatings permit visible light to pass through window glazings, while reflecting heat back into the building in the winter and/or away from the building in the summer. Such coatings can reduce heat losses and winter heating bills, as well as summer solar heat gain and air conditioning bills. At the same time, while saving energy dollars, people are far more comfortable on those cold winter nights and hot summer days.

Much of the research that led to these coatings was performed by DOE at its Lawrence Berkeley Laboratory. Without federal involvement, the introduction (not to mention the proliferation) of low-E technology would likely have been delayed for many years.

Andersen is the leading manufacturer of windows with low-E coatings, which are standard in most of Andersen's products. However, because of federal development and encouragement, low-E is also available to and utilized by medium and small-sized manufacturers as well. Unlike many industries, the window industry is not solely in the hands of a few large companies, but includes thousands of manufacturers ranging from companies like Andersen to small mom-and-pop operations. Low-E coatings are available to all of these manufacturers. I would estimate that over one third of the roughly forty million residential windows to be sold this year in the United States will have such coatings.

Another example of DOE/industry cooperation that Andersen strongly supports is the National Fenestration Rating Council ("NFRC"). With the continued leadership and support of DOE, the NFRC was established through the cooperation of industry, state and local governments, home builders, utility and consumer organizations to rate and label energy performance for window products. The Energy Policy Act of 1992 recognizes the importance of this organization. Prior to creation of the Council, there was no industry-wide acceptance of an energy rating system. The NFRC has made considerable progress in its mission, although there remains much work still to be done. For example, over 16,000 different products have received certified ratings and are contained in the most recent NFRC Certified Products Directory. Andersen obtains ratings from independent testing and simulation laboratories, and certifies and labels all of its products under the NFRC program. With the NFRC system, consumers and other interested parties can fairly determine and compare the energy performance of the products in the marketplace.

DOE research has proved and will continue to prove invaluable in spurring the continued development of technological improvements in the window industry that benefit everyone. DOE technical assistance also enhances the diffusion of these improvements throughout the industry. In addition to ones listed above, many other examples exist.

In conclusion, let me reiterate our support for full funding of the DOE windows and glazings program. This research, as well as continued DOE support in other areas, is vital to our industry. This concludes my written remarks. I would be happy to answer any questions the Subcommittee may have.

USACA

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United States Advanced Ceramics Association

Summary of the Statement of the United States Advanced Ceramics Association submitted on March 24, 1995 to the United States House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, regarding United States Department of Energy, Office of Energy Efficiency & Renewable Energy, Fiscal Year 1996 Appropriations.

The United States Advanced Ceramics Association (USACA) appreciates the opportunity to present its views and recommendations to the United States House of Representatives, Committee on Appropriations, Subcommittee on the Interior and Related Agencies, regarding Fiscal Year 1996 (FY96) appropriations for the Department of Energy (DOE), Office of Energy Efficiency & Renewable Energy (EE).

USACA is an organization dedicated to the technological advancement and commercial success of our nation's advanced ceramics industry, representing the collective interests of 25 manufacturers and users of structural and electronic ceramic materials and products. USACA sees continuing government participation as critical to advanced ceramic technology development and future commercialization in industrial applications that will enable substantial energy savings and reduction of atmospheric pollutants. Current DOE EE Office of Transportation Technologies (OTT) and Office of Industrial Technologies (OIT) programs are helping us reach those goals. The following table provides USACA's recommendations for FY96 DOE EE funding for advanced ceramic technology programs.

~TRANSPORTATION SECTOR~		
FY96 DOE PROGRAM REQUEST & USACA RECOMMENDATIONS ($ IN MILLIONS)	**DOE**	**USACA**
Materials Technology		
Propulsion System Materials	$17.614	*$17.614* reprogram new starts back into existing programs
High Temperature Materials Laboratory	$4.663	*$4.663*
Heat Engine Development - Light Duty Engine Development		
Ceramic Turbine Engine Demonstration	$3.839	*$3.839*
Hybrid Vehicle Turbine Engine	$3.8	*$9*
Electric and Hybrid Propulsion Development		
Hybrid Propulsion Systems Development	$55.6	*$55.6*
~ INDUSTRY SECTOR ~		
Cogeneration		
Continuous Fiber Ceramic Composites	$6.9	*$9.048*
Advanced Top Cycles		
• Ceramic Turbine Retrofit	$9.1	*$9.1*
• Advanced Turbine Systems	$16.340	*$16.340*

OFFICE OF TRANSPORTATION TECHNOLOGIES PROGRAMS

The incorporation of advanced ceramics into the next generation of motor vehicle propulsion systems will mean significant increases in fuel efficiency, significant reduction of harmful emissions, higher performance, reduced maintenance and greater adaptability to alternative fuels. For these reasons, USACA believes advanced ceramics will play a key role in the ultimate success in meeting our national goals of cleaner, more fuel efficient vehicles. Advanced ceramic solutions will help bridge the technology gaps facing cleaner burning spark ignition engines, direct-drive gas turbine engines, and hybrid power plants (involving small gas turbines/battery operated propulsion).

Since 1975, DOE has been sponsoring cost-shared R&D work aimed at structural ceramic component technology for vehicular gas turbine engines. For the past decade, DOE's programs have been two-fold: 1) engine-centered programs focused on evolving and demonstrating structural ceramics in usable engine component form, and 2) base technology programs aimed at basic materials and process development. Advanced ceramic and engine companies have received sponsorship both through the engine programs to develop component capability and through the Oak Ridge National Laboratory (ORNL) sponsored base technology programs.

Currently, USACA supports a number of federal technology development initiatives aimed at improving the energy efficiency, environmental cleanliness and overall competitiveness of the motor vehicle industry. Programs like the DOE EE OTT 1) Propulsion Systems Materials, 2) ORNL High Temperature Materials Laboratory, 3) Light Duty Engine Technologies - Ceramic Turbine Engine Demonstration and Hybrid Vehicle Turbine Engine, and 4) Electric and Hybrid Propulsion Development - Systems Development are helping the U.S. keep pace with foreign competition.

For the ceramic turbine hybrid power plant to be a reality, Propulsion System Materials ceramic technology development programs must proceed with adequate funding. Current Propulsion System Materials activities are an offshoot of the highly successful DOE Ceramic Technology Program which was instrumental in improving ceramic technology to the point where ceramic components can run reliably in conventional automobile engines. As a result of the Ceramic Technology Program ceramic components are currently being inserted into gas turbines and heavy duty diesel engines.

To reach the ultimate goal of large scale commercialization, the cost hurdle must still be overcome. Ceramic components are not now being used by U.S. automobile manufacturers in production applications and will not be used in the future without reductions in cost. In fact, large scale commercial implementation of ceramic components in all applications is being stifled by cost.

Now, more than ever, it is important that these cost-shared programs are funded at the program plan levels. Funding shortfalls will delay important advances, stretch out the timetable for completion and shift the commercialization advantage to our foreign competitors. This activity is critical to the competitiveness of the United States ceramics and motor vehicle industries. USACA recommends that the funding allocated in the DOE Propulsion System Materials for new starts, i.e. fuel cell, be reprogrammed back into the existing efforts, i.e. ceramic production for gas turbines, to allow them to complete their work.

In automotive-sized engines, the ceramic gas turbine engine is an attractive power plant in its direct-drive ("prime-power") form, because of potential increments in fuel economy, alternative fuels usage and smooth operation. Recent emphasis on quantum increases in fuel economy has led automobile companies to accelerate hybrid vehicle R&D. In this setting, the small ceramic gas turbine emerges as the power plant of choice because of its potential for packaging, low emissions, alternate fuels, efficiency and quiet operation. Ceramics provide key payoffs in : 1) turbine inlet temperature, 2) weight and inertia (1/3 of metals), 3), hot wall/low emissions combustors, and 4) potential component cost savings versus metallic superalloy turbine components.

The DOE Heat Engine Development programs have been redirected by DOE and its contractors to support technologies directly necessary for development of the ceramic engines needed for the hybrid programs. Target technology areas are:

- Structural ceramic turbine components (design/process development/fab/test);

- Low emission combustion systems (design/fab/test);
- heat recovery systems (design/ceramic process and material development/fab/ test); and
- Ceramic engine insulation.

The continuation of the OTT Heat Engine Development- Light Duty Engine Development (LDED)- Ceramic Demonstration and Hybrid Turbine activities is critical to the success of the hybrid power train programs. USACA agrees with the FY96 DOE recommendation of $3.839 million for the Ceramics Turbine Engine Demonstration, but recommends a $9 million level of FY96 funding for the Hybrid Vehicle Turbine Engine program. The suggested funding increase from the DOE request of $3.773 is in direct response to the auto industry's desire to accelerate the progress of the several technologies required to implement the high-efficiency, low emissions, gas-turbine-powered APU for hybrid automotive vehicles. The accelerated activities would target having structural ceramic component technology firmly in-hand by this decade's end. These enhanced efforts will involve increased development by the ceramic manufacturing companies as well as accelerated gas turbine company development and demonstration. As technologies are successfully demonstrated, they will be implemented in gas turbine APU's in the DOE/auto industry Hybrid Propulsion Systems program. Specific ceramic technologies targeted for accelerated development include: turbine scrolls/vanes/wheels; regenerator disks; ceramic insulation; and ceramic combustion systems.

In addition to heat engine development, USACA views DOE's Hybrid Propulsion Systems Development as critical for reaching the nation's goals of cleaner, more fuel efficient vehicles. This program focuses on power train demonstrator vehicles then using state-of-the-art technology, and requires approximately $55.6 million in government funding for FY96 to reach its targets.

OFFICE OF INDUSTRIAL TECHNOLOGIES PROGRAMS

Continuous Fiber Ceramic Composites (CFCCs) are lightweight, tough, corrosion-resistant materials which exhibit strength at high temperatures. CFCCs represent one of the new technologies becoming available that will, if successfully developed and commercialized, bring about landmark change in U.S. energy efficiency, pollution reduction, productivity and competitiveness. How these new technologies are pursued and the roles that are assumed by industry, government, universities, and national laboratories will determine whether the United States or other nations will benefit from their development. The DOE CFCC program under OIT's Cogeneration has been developed to foster these relationships and ensure a U.S. capability to produce reliable and cost-effective CFCC components for industrial applications.

The market for these types of industrial CFCC products is estimated to be $700 million to $1.4 billion in the short term, developing to a market of over $6.4 billion by the year 2010. It is evident that successful development of CFCCs will increase domestic and global competitiveness from improved component performance. Industrial applications that will result in greater industrial energy efficiency, cleaner environment include:

- Gas Turbines (Power Generation and Propulsion);
- High Pressure Heat Exchangers;
- Waste Incineration;
- Radiant Burners (Steam Generation, Drying and Low-Temp & High-Temp Heating);
- Hot Gas Filters; and
- Diesel Engines (Particulate Traps and Engine Components).

USACA sees the government's leadership as critical to advanced ceramic development and future commercialization in industrial applications that will enable substantial energy savings and result in the reduction of atmospheric pollutants. The DOE CFCC program is helping us reach those goals. The use of CFCCs in industrial applications can result in the following annual benefits by the year 2010:

- Energy savings over 2.16 quadrillion BTUs;
- Energy cost savings of over $8.1 billion; and
- Emission reductions of over 917,000 tons of NOx & 118,000,000 tons of CO_2.

Industry often singles out the DOE CFCC Program as a model program to be emulated in its conception and design and in its involvement of industry, government, universities, and national laboratories. At a time when Congress and government agencies were struggling to redefine the role of national laboratories and their relationship to national industrial competitiveness, the CFCC Program, which aims to establish and maintain U.S. scientific and technological leadership in advanced ceramics and processing, could serve as a blueprint for implementation.

In spite of the tremendous benefits promised by CFCCs, as well as the program's rapid progress, the program continually receives funding at levels well below amounts specified in the program plan requested by this Committee in the original legislation. To begin restoration of this program, USACA recommends Congress provide $9.048 million in funding for Fiscal Year 1996. This amount is needed merely to maintain the Fiscal Year 1994 and Fiscal Year 1995 levels of funding.

DOE's Advanced Turbine Systems (ATS) program is also an industry led partnership that is important to the ceramics industry. A keystone of this program is a ceramic demonstration insertion program. The ATS objective is to strengthen the competitive position of the U.S. gas turbine industry through the development of cost competitive, environmentally superior, ultra-high efficiency gas turbine systems for base-load utility and industrial electric power generation markets. The ATS will keep the U.S. turbine manufacturers on the cutting edge of technology for power generation applications, enhancing our national competitiveness, increasing export revenues and creating quality jobs. The goals of the program are to:

- Improve efficiency by 15 percent over today's best gas turbine;
- Lower the cost of producing electricity by 10 percent; and
- Reduce system emissions of nitrogen oxide (NOx), carbon dioxide, carbon monoxide and unburned hydrocarbons.

Management of the program is coordinated between DOE Offices of Energy Efficiency and Fossil Energy, the Environmental Protection Agency, the Department of Defense, the Electric Power Research Institute, the Gas Research Institute and six gas turbine engine manufacturers.

A major element of the ATS is the materials and manufacturing support. This portion of the program addresses the high payoff, high risk materials and manufacturing solutions. One approach to meeting the high operating and low NOx requirements in the ATS program involves the utilization of monolithic ceramics and ceramic matrix composites.

A critical element of the ceramics effort is the ceramic gas turbine retrofit project, entailing the selective replacement of metallic hot section components with ceramic parts. The 5-year cost-shared ceramic retrofit project will develop and demonstrate ceramic and ceramic matrix composite combustor liner, nozzle and blade components. The program includes ceramic component design, manufacture (with emphasis on cost effective manufacturing technology), non-destructive evaluation, testing and a 4,000 hour engine demonstration.

The ATS program is important to the U.S. gas turbine and U.S. ceramics industries. Our foreign competitors have targeted these technologies as key to industrial competitiveness. Because their governments are supporting their research and development efforts, Congress needs to step up to the challenge and help level the playing field for our domestic industry. With this assistance, the United States has the capability to ensure world leadership in this arena.

CONCLUSION

USACA supports the continuation of the DOE EE OTT & OIT cost-shared ceramic programs at the funding levels discussed above. These programs are enabling to high- energy efficiency, low emission/alternative fuel systems. The programs provide new affordable enabling technology options for U.S. industrial competitiveness in global markets. Industry and government have already invested significant capital, and now, as we are approaching the end of the development phase, funding should not be curtailed.

For additional information contact Jeffrey S. Abboud, USACA, Phone 703-812-8740, Fax 703-812-8743

COMMENTS BY

WHIRLPOOL CORPORATION

TO THE

U.S. HOUSE OF REPRESENTATIVES

APPROPRIATIONS (SUBCOMMITTEE ON THE INTERIOR)

REGARDING:

THE U.S. DEPARTMENT OF ENERGY'S LIGHTING AND APPLIANCE STANDARDS PROGRAM

APRIL 7, 1995

Mr. Chairman and members of the Committee, Whirlpool Corporation is pleased to submit testimony regarding the Appropriations for the Department of Energy's (DOEs) "Lighting and Appliance Standards" program. We support the full $10.4 million funding for this program and request that none of this requested funding be cut for FY'96.

The genesis for this program occurred in 1987 with the passage of the National Appliance Energy Conservation Act (NAECA). This legislation was supported by all major appliance manufacturers because it preempted the proliferation of new state appliance standards which were beginning to complicate and add prohibitive cost to nationwide manufacturing and distribution systems.

This program affects virtually all major home appliance goods including clothes washers, dryers, dishwashers, room air conditioners, refrigerators, freezers, ranges, ovens, cooktops, and microwave ovens. Whirlpool is a manufacturer and/or marketer of all these products in North America and throughout the world. Globally, we are the largest appliance manufacturer and have been freely trading our products across national boundaries for several decades.

Whirlpool supports DOE's FY'96 "Lighting and Appliance Standards" program for several reasons. These reasons include:

- Consumer Benefits - shorter payback periods; lower water bills; new washer features; lower electric bills.

- Environmental - less air pollution; improved water conservation; and preservation of natural fuel resources.

- Utilities - avoided new electric utility construction; less municipal water treatment; conservation of water resources; and improved demand side management (DSM).

- Manufacturers - enhanced long term value of recent and current energy efficiency investments; requirements that imports be efficient; improved global competitiveness; inhibitions on States promulgation of numerous local standards; and preservation of existing efficiency gains.

Our support for DOE's "Lighting and Appliance Standards" program is with the caveat that such funding be prioritized to focus DOE's resources on these rulemaking activities which represent the greatest potential for total national annual energy savings (which are also economically justified). By so doing, DOE's efforts will be concentrated on those programs which will reap cost savings for consumers and energy and environmental benefits for our nation at the earliest possible time. It will also redirect DOE's activities away from other rulemaking for which the energy savings potential and consumer cost savings are questionable, minimal, or virtually non-existent.

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Among those appliance categories with the greatest potential for total national annual energy savings are clothes washers, refrigerators and freezers. In particular, DOE standards which are under consideration for clothes washers have the potential to:

- Provide consumers with a substantial net cost savings ... at least a five fold payback over the life of the product;
- Cut energy consumption by 45%;
- Cut water consumption by approximately 40%; and,
- Result in average annual energy and water savings of approximately $96.

Moreover, such standards also have the potential to save .441 Quads of primary energy per year with cumulative energy savings of 2.4 Quads through the year 2010. These benefits are also extremely significant in terms of consumer savings as well as allocation of utility resources into more productive and cost beneficial endeavors.

In like manner, recently negotiated refrigerator and freezer standards will improve energy efficiency significantly. These standards were negotiated informally over a two-year period by manufacturers, energy advocates, utilities and state energy offices, with DOE as an observer. An agreement was reached in late 1994 which will enable manufacturers to plan with more certainty their future capital tooling and factory investments, while implementing design improvement which will increase energy efficiency by another 22-30% over current 1993 standards. Although efficient appliances cost more, the net effect is to provide consumers with savings of 3 to 4 times the premium cost of an efficient appliance during the life of the product. These efficiency improvements will cut overall energy use by 70% versus 1972 models. In addition, the energy consumption of these new refrigerators will represent the relatively minuscule annual equivalent of a continuously burning 60 watt light bulb.

In addition, there are a number of appliance energy test procedure amendments necessary to update existing DOE appliance certification and testing procedures as well as to support existing FTC labeling rules. Long overdue test procedure rules are needed for clothes washers, ranges, etc.

In contrast to the significant energy savings potential of clothes washers, refrigerators and freezers standards, only modest opportunities exist for additional energy savings in room air conditioners and dishwashers. Moreover, it is our opinion, and that of the entire U.S. appliance industry, that no new standards are justified for ranges, ovens, cooktops, microwave ovens and dryers. In cooking products this is due to drastically changing lifestyles, the adverse affects of most energy designs in cooking performance, the very long payback periods to consumers and the minimal potential for energy savings. In dryers, the energy efficient design options are extremely expensive, produce very long payback to consumers and in all cases produce relatively minuscule energy savings when paired with highly efficient clothes washer designs. In addition, DOE is proposing that "monetization of energy and environmental externalities" be considered in future economic justification of appliance standards. In general, such externalities are extremely esoteric, somewhat subjective, biased for increased efficiency levels, discriminate against other manufacturer impact issues and could lead to a double counting of environmental benefits already reached under other Environmental Protection Agency regulations (e.g., new Clean Air Act amendments rules). Because of the ambiguous nature of this rulemaking and the lack of any known substantive benefits, we submit that such rules are not priority rules and do not merit promulgation of new standards levels by DOE.

The point of the above narrative on DOE's appliance standards program is to highlight that some product categories have significant energy savings potential while others do not. The full funding for DOE's "Lighting and Appliance Standards" program should be approved with the directive that DOE prioritize its spending such that those products with the total national annual energy savings receive the greatest funding, and allocation of resources in FY'96. Under such a scenario all the significant energy efficient designs will be manufactured and marketed early, obviating the necessity for intense new rounds of appliance standards rulemaking in the latter part of this decade and early into the next century. These existing, cost-justified, highly energy efficient technologies will provide:

- consumers with earlier operational savings benefits;
- manufacturers with more planning time and more flexibility;
- utilities with less pressure to build new generating facilities; and,
- local public service commissions and state energy offices greater predictability in forecasting state and local energy needs.

Because of the cumulative burden of multiple appliance standards regulations on manufacturers and as part of the prioritization process, we recommend that the Interior Committee adopt language which states:

> *"The Department of Energy's Division of Energy Efficiency and Renewable Energy, Office of Codes and Standards, is directed to prioritize use of available funding to expeditiously promulgate existing appliance standards rulemaking in a manner consistent with technology and commercially feasible and economic justification requirements of the National Appliance Energy Conservation Act of 1987. Such prioritization will include use of funding for those product categories which have the greatest potential for total national annual energy savings. Existing test procedure rulemakings in support of the above current, high priority appliance standards rulemaking will also be considered high priority rulemakings. Because of the cumulative burden of all appliance standards rulemaking and the impact on consumers who purchase those appliances, DOE should consider as "low priority" those appliance standards rulemakings pertaining to ranges, ovens, cooktops, microwave ovens, and clothes dryers except for supporting test procedures, and except for analyses that justify publication of a "no new standard" rule. DOE should also consider as "low priority"*

> *those rulemaking proposals pertaining to monetization of environmental and energy security externalities with respect to appliance energy conservation standards."*

In summary, prompt direction to DOE to prioritize spending on those "Lighting and Appliance Standards", which are economically justified and which have the greatest potential for the nation to save energy on an annual basis, will provide:

1) consumers much earlier cost savings and improved product designs;

2) manufacturers with greater assurances that states will not promulgate costly appliance standards programs of their own;

3) manufacturers with more flexibility and time to plan future product innovations;

4) manufacturers with less appliance standards cumulative burden;

5) utilities and State Energy Offices with more predictability in forecasting future energy needs;

6) nationwide improvements in energy and water conservation.

Thank you for the opportunity to comment, Please feel free to contact us should you have any questions.

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WRITTEN STATEMENT OF THE

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING ENGINEERS

ASHRAE

Technology for a Better Environment
Centennial
1894-95 ~ 1994-95

to the

INTERIOR AND RELATED AGENCIES SUBCOMMITTEE

of the

COMMITTEE ON APPROPRIATIONS
U.S. House of Representatives
Washington, D.C. 20515

U.S. DEPARTMENT OF ENERGY
FY96 APPROPRIATIONS

24 March 1995

INTRODUCTION

As far back as the 1920s, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has been providing private funds for studies to measure and verify heat transfer through the building envelope, and the efficient operation of heating and air-conditioning systems and components. Today, ASHRAE maintains a $ 2.8 million privately-funded annual research program, with 40-50 percent devoted to energy-related studies. Such research efforts are fairly unique to ASHRAE as a technical society.

ASHRAE believes that the private sector should lead in many areas of energy-related research, and recognizes the urgent desire of the 104th Congress to reduce the national deficit.

Over the last two decades, the federal government has played an important role in private-sector efforts to develop and distribute technical knowledge for design, application, installation and operation of energy-efficient heating, ventilation, air-conditioning, and refrigeration. Cooperative research efforts, as well as cost-sharing programs between the private sector and the federal government have helped expand the base of knowledge and accelerate the transfer of technology in areas of significant interest to the public.

The federal government has a vital role in carrying out energy conservation research, development and technology transfer. Without active federal participation, important technological advances would often be hampered by industry fragmentation, market structure, or by economic limitations of basic research.

ACHIEVING ENERGY CONSERVATION IN BUILDINGS

Initiatives by the U.S. Department of Energy (DOE), the business community, private-sector organizations along with regional and local utilities have made significant strides in reducing energy consumption in buildings in the last twenty years. Public education has created an awareness of the importance of conserving energy and protecting natural resources. But the tasks are not complete.

The development and use of more energy efficient equipment and processes have been stimulated by various programs of DOE. In the buildings sector, the development and application of research related to more energy-efficient construction materials and more energy-conscious design practices have brought about reductions in energy consumption in buildings. None of these efforts is more important than the application of energy standards for buildings and buildings' equipment.

Standards are used by the buildings design community, and the standards have been incorporated into the code process in the U.S. The enforcement of these standards ensures that acceptable energy requirements are being met in new and major renovation construction. While incorporating important energy requirements for buildings, the standards include avenues of flexibility for the designer to be innovative. Also, many professionals incorporate additional energy-saving features which are cost-effective for the facility's owner.

DOE estimates that through the implementation and enforcement of improved energy standards that the occupants of new buildings will save an estimated $1.2 billion in avoided energy costs by the year 2000. In 1994, residential construction reached $300 billion and commercial construction reached $200 billion. With the application of current buildings energy standards, this $500 billion worth of construction with its projected lifetime of 50-70 years has the ability of reducing energy consumption during that period by up to forty percent. Most energy saving measures have **a payback of additional capital requirements in the range of three years.** Energy savings for the remainder of the lifetime of the structure represent savings to the consumer and reduced energy demand for the nation.

THE JOINT PRIVATE-SECTOR/GOVERNMENT CHALLENGE

ASHRAE is recognized worldwide for its development of voluntary, private-sector consensus-based standards -- documents which assist industry and the public by offering uniform methods of testing, terminology and recommended practice. ASHRAE standards are drafted by individuals who are experts in their field, after which public comments are requested to ensure input from all interested parties. ASHRAE's standards-writing procedures are recognized by the American National Standards Institute, and ASHRAE serves as a secretariat for standards-developing technical committees of the International Organization for Standardization.

Standards development in the private sector is costly and involves the commitment of significant resources -- most of these costs are borne by the private sector. In the case of ASHRAE standards, the Society provides the costs of support staff, the costs of development process (various draft versions development process, duplication costs, transportation costs, costs associated with committee meetings, hearings and appeals expenses, etc.). Industry contributes to the process by making available experts, as volunteers with diverse specialties, to serve as committee members; industry also provides input information and valuable feed-back, on draft documents.

The ASHRAE process relies on its own repository of technology and the expertise of its members. But, DOE programs have contributed to the process primarily by providing technical knowledge and calculations on which to base the standards.

ASHRAE's energy-efficient design standard for commercial buildings (Standard 90.1) serves as the technical basis for energy codes in most states. DOE helped to make possible accelerated development of the standard, and has made available research used in the standard's revisions. For example, in the early 1980s the computer analysis (of different types of commercial buildings in various climates with a variety of types of mechanical equipment) provided the support data necessary to identify those elements of buildings which were the best targets for energy savings (i.e., the basis for a cost/benefit analysis). In the late 1980s, DOE supported the development of a model residential building standard.

To accelerate the adoption of ASHRAE/IES Standard 90.1-1989 a "code version" of the standard (which would be easily adapted to the needs of the model code organizations or to state and local governmental officials) was developed. Since code versions are written in terms of specific compliance requirements, DOE supported the computer analysis to produce compliance tools and the alternate compliance paths appearing in the standard and committee members transportation costs. The availability of energy standards written in building code language is an ingredient for compliance with the Congressional action of the 1992 EPACT.

This type of comprehensive "whole-building" analysis provided by DOE efforts is beyond the capability of any segment of the buildings industry or the research resources of ASHRAE.

Other ASHRAE standards which have been developed with the assistance of DOE cooperation cover the thermal storage devices (Standard 94.2), ventilation for acceptable indoor air quality (Standard 62), and energy conservation in existing buildings (Standard 100 series).

COMPLEX NATURE OF ENERGY STANDARDS

Building energy standards are comprehensive in nature and, as such, address many parameters which inter-relate with each other. Energy standards not only must consider the thermal characteristics of the building itself, but must include the influence of the surrounding environment (weather) and the impact of the occupancy of the structure.

The energy characteristics of various components of a building (such as windows, refrigeration equipment, etc.) are addressed by the particular industry; but, the inter-active nature of the various building components (important to the overall energy performance characteristics of a building) are not addressed by a single industry. Private-sector organizations, such as ASHRAE, can take a broader perspective in addressing the energy needs of the entire building.

Although ASHRAE raises funds in the private sector annually to expand the non-proprietary technical knowledge, the involvement of the DOE through the years has accelerated greatly the advancement of the technology so important in the development of standards in the private sector.

ENERGY SAVINGS DEMONSTRATED IN MARKETPLACE

For the last fourteen years, ASHRAE has promoted a program of recognizing the benefits of energy conservation measures. The program evolved from the energy crisis of the late 1970s and culminated in the establishment of an "energy" awards program - first presented in 1981. The program has continued and expanded through the years.

The ASHRAE awards program recognizes innovative, energy-conscious projects, which exhibit proven savings through application of energy conservation practices. Recognition by ASHRAE includes not only the design professional but the facility owner.

The program has various project categories. The buildings area is divided into both new construction and renovation of existing facilities for commercial, institutional, health care, public assembly and residential (including high-rise); also included for recognition are industrial facilities and processes and projects incorporating alternative or renewable energy use. Many of the entries involve applications of energy conservation and renewable energy in situations which are unusual.

From its inception, the uniqueness of the ASHRAE recognition program is that not only is the project design critical in the evaluation process, but each project must demonstrate that the project functioned as designed by documenting actual energy consumption for a period of one year in the finished project.

ASHRAE awards are now known as "Technology Awards" because other considerations beyond energy alone are part of the evaluation process. For example, the quality of the indoor air is a consideration in applicable situations.

As part of the entry evaluations, applicants must satisfy the judges that the projects meet or exceed the provisions in applicable ASHRAE Standards. Projects today must satisfy the energy requirements of the current versions of ASHRAE/IES Standard 90.1-1989 or 90.2-1993 for buildings and ASHRAE Standard 62-1989 for acceptable indoor air quality.

Cost-Effective Energy Savings

Although it is difficult to generalize "ball park" numbers for energy savings with such a broad scope of projects for various types of buildings and facilities in different geographical locations, each award entry must demonstrate the "actual" energy savings and provide information such as percent of annual energy savings or the economic pay-back period.

In the case of existing structures, part of the energy savings may be incorporating some or all of the provisions of Standard 90. Most entries, however, include the application of some special energy-saving techniques. These special techniques (which may go beyond Standard 90 requirements) must be economically feasible with reasonable payback periods for any additional capital investment by the owner.

The payback periods vary from "immediate" (i.e., situations where additional energy savings were achieved without accruing costs above normal practices) to payback periods up to about 5-6 years. However, most economic analyses describes **payback periods for the additional energy-saving measures for the facilities owner of less than three years. The conclusion is that energy conservation is cost-effective when applied by a well-trained design professional when the tools are available.**

USE OF STANDARDS BY DESIGN PROFESSIONALS

To encourage and facilitate the use of the components of ASHRAE/IES 90.1-1989 (and the DOE Federal Energy Standard), DOE supported efforts to develop a "users" manual for the standard. It is distributed as the "cookbook" for compliance for engineers, architects, designers, code officials and equipment manufacturers. Included in the manual is guidance on the application of the LTGSTD and ENVST microcomputer compliance programs that accompany Standard 90.1. To date, ASHRAE has distributed more than 3000 of the Users Manuals.

THE CONTINUING CHALLENGE

The establishment of energy savings targets or goals for the U.S. and the buildings sector are continually adjusted to achieve more savings. The first edition of ASHRAE Standard 90 (1975) made the initial step toward designing energy efficient buildings. The second (1980) and third (1989) versions strengthened the energy conserving requirements. The next version of Standard 90 is looking to accomplish the goal of still more energy-efficient buildings in the U.S.

The task is a continuous one. Updating and "tightening" energy requirements is driven by a number of forces:

1. Availability of new building materials and system components
2. Introduction of new design techniques
3. Reaction to economic pressures to reduce energy costs
4. Response to societal or environmental demands (such as climate change targets)

The Next Steps

New technologies, manufacturing techniques and improved design methods will be required to accomplish these goals. Several areas of non-proprietary technology have been identified for the more-promising targets for possible improvements. One is an advancement in fenestration data for a broad cross-section of the building stock, and another area is to develop more data related to alternative compliance paths. DOE Buildings Energy Standards programs can provide valuable input to the process.

BACKGROUND - ASHRAE

Founded in 1894, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) is a technical society of some 50,000 members. ASHRAE's members are individuals who are engineering consultants, employees of manufacturers, manufacturer's representatives, contractors, managers and users of buildings, utility employees and representatives, and teachers and researchers. Members of ASHRAE belong as individuals and not as representatives of businesses or interest groups. There are no organizational or corporate memberships in ASHRAE.

ASHRAE's focus is comfort control in buildings and all the associated technology. Energy conservation in buildings began in 1975 with the publication of the Society's first version of its design Standard 90. The standard was updated first in 1980, and then in its third edition, the Standard was split into two documents - 90.1-1989 "Energy Efficient Design of New Buildings - Except Low-Rise Residential Buildings" and 90.2-1993 "Energy Efficient Design of New Low-Rise Residential Buildings." Similar standards address energy conservation in existing buildings.

ASHRAE also has standards addressing the indoor environment including its Standard 62-1989 "Ventilation for Acceptable Indoor Air Quality." The application of energy conservation measures can have an impact on the indoor air quality as the building envelope is tightened.

As part of its technology, ASHRAE publishes a four-volume design handbook series (each of which is updated every four years in a continuous cycle), a monthly magazine (ASHRAE Journal), semi-annual transactions of technical papers, and special technical publications. The Society sponsors a research program (currently 90 active projects valued at more than $9 million dollars) with funds raised in the private sector, conducts technical conferences and seminars, and provides educational programs.

ASHRAE's standards activities began early in its history. There are now more than 80 standards and guidelines published by ASHRAE. ASHRAE standards and guidelines address the design, operation and commissioning of building systems, test procedures for evaluating products, product specifications, and system-operating performance. The voluntary consensus-based standards are written under strictly administered rules that define committee size, committee balance among affected parties (i.e. manufacturers, users, interest groups, etc.), public review of draft standards, and appeal processes for unresolved differences. ASHRAE standard-writing procedures have been coordinated with (and accepted by) the American National Standards Institute (ANSI). ASHRAE standards are reviewed every five years or less and are updated to incorporate the newest proven technology.

R Judkoff
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Golden, CO 80401
USA

Phone: 303-278-8330
Fax: 303-275-6055

Date: 3/16/95

Honorable Ralph Regula
Chairman
House Interiors Subcommittee
Room B-308
Rayburn House Office Building
Washington, DC 20515

Fax: 202-225-9096

Dear Congressman Regula:

Energy to heat, cool, light, and operate buildings accounts for approximately 1/3 of the total energy use in the United States, or about $200 billion per year. Research programs sponsored by the Department of Energy's "Solar Buildings" and "Building Energy Conservation" programs are essential to reduce imports of foreign energy supplies, and increase US competitiveness in the global economy. These research programs have already paid for themselves many times over, in efficiency improvements to the US building stock. Public Utilities have had the confidence to embark in billions of dollars of demand side management projects because of technologies and computer programs developed under these DOE programs. However, we still have a long way to go to catch up with our European and Japanese competitors. In Europe and Japan energy is priced 3 to 5 times higher than in the US, and government support for the development of renewable and conservation technology is strong. Strong support is needed from the Department of Energy to ensure that we do not become an importer of foreign technology in this vital and growing area. As a concerned citizen and constituent, I urge you to maintain, if not increase the funds available for the DOE Solar Buildings and Conservation programs.

Thank you for your kind consideration, and please include this letter in the official hearing record.

Sincerely,

Ronald D. Judkoff

Michael Mora
2653 B Spring St.
Redwood City, CA 94063

March 28, 1995

House Interiors Appropriations Subcommittee

Chairperson: Ralph Regula

Majority Staff Director Deborah Weatherly Fax (202)225-9069

Please include this letter in the official hearing record.

In an era when our country faces the greatest economic problems since the Great Depression, it makes no sense to continue the wasteful energy use practices of the 60's and 70's. A substantial part of our balance of payments deficit consists of payments for foreign oil. That's money that could be used at home to provide real capital for improving the quality of life for that vanishing breed: the American worker. Additional tax money is squandered in reckless military adventures defending oil company assets.

There is a better way, the promotion and development of renewable energy resources such as: conservation, solar, wind, and vehicle fuel economy improvements. Energy use in buildings and residences costs $195 Billion each year. Solar water heating, space heating, and passive solar building design which are promoted by DOE programs make U.S. homes and commercial building more efficient and free assets to be used in more productive economic activities.

It has been my direct experience in the alternative energy business that the young industries that are developing these technologies are making growing contributions to the economy and provide new, high skilled hobs. These technologies provide the U.S. with the tools to be more efficient, productive, and environmentally sustainable both now and well into the future.

Sincerely,

Michael Mora

SOLAREX

March 17, 1995

Ms. Deborah Weatherly
Majority Staff Director
House Appropriations Committee
Subcommittee on Interior and Related Agencies
Rayburn House Office Building
Washington DC 20515

Fax: (202)225-9069

Dear Ms. Weatherly:

As a member of the American Solar Energy Society and the nation's largest U.S. owned manufacturer of photovoltaic (solar electric) modules and components, Solarex supports the development and promotion of cleaner, renewable energy resources and the improved usage of energy use. The investment the federal government makes in these areas today is not only necessary, but will be repaid many times over.

The use of solar energy in buildings has an enormous impact on our economy. Energy use in residences and commercial buildings equates to $195 billion each year. Solar water heating, space heating, passive solar as well as solar electric building designs which are promoted by Department of Energy programs make American homes and commercial buildings more efficient while freeing assets for more productive economic activities. The young industries that develop these technologies are making growing contributions to the economy and provide new high skilled jobs. These technologies provide the United States with the tools to be more efficient, productive, and environmentally sustainable both now and well into the future.

I welcome any questions your subommittee may have of the renewable industry as it pertains to the solar industry. Further, I request that this letter be included in the official hearing record for your hearings scheduled for March 20.

Sincerely,

Harvey Forest
CEO, Photovoltaics

A Business Unit of Amoco/Enron Solar
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ILLINOIS SUPPORT FOR CONTINUED FUNDING OF DOE FOSSIL ENERGY PROGRAMS IN FFY96

COMMENTS OF

JOHN S. MOORE, DIRECTOR
ILLINOIS DEPARTMENT OF ENERGY
AND NATURAL RESOURCES

APRIL 3, 1995

Thank you for the opportunity to express the views of the State of Illinois before the House Interior and Related Agencies Appropriations Subcommittee. My name is John S. Moore. I serve as Director of the Illinois Department of Energy and Natural Resources (ENR) -- the lead agency for Illinois energy programs. I also serve as Chairman of the Illinois Coal Development Board (ICDB) which is appointed by the Governor of Illinois to provide guidance and direction to Illinois coal programs. My comments today address Illinois' support for continued funding of Department of Energy Fossil Energy Programs in FFY96.

As Director of ENR, I am acutely aware of the socioeconomic impact of coal on Illinois and its citizens. Throughout this century, coal has played a fundamental role in meeting the energy needs of Illinois and the nation. And today, coal is used to generate more than half of the electricity in the United States. The importance of coal, however, is far greater than its mere energy content alone. The mining of coal has been a significant factor in the economic and cultural fabric of many regions of the country. The Illinois coal industry, for example, once employed as many as 100,000 miners. The coal mining industry continues to pump more than $1.5 billion into the Illinois economy each year. Today, environmental concerns over the utilization of fossil fuels have led some to question the role of coal in meeting the nation's future energy needs. Coal should and will play an increasingly important role as an energy resource to the nation and the world.

Only five years ago, Congress passed Amendments to the Clean Air Act which dramatically changed the way utilities view high-sulfur coals mined in Illinois and other Midwestern states. The Amendments required that 110 electric power plants with the greatest sulfur emissions make dramatic cuts in sulfur emissions by 1995, or Phase I of the Acid Rain Program. Clean coal technologies were not used as the principal means of achieving the Phase I emission goals. Instead, most utilities have opted to switch to low-sulfur fuels such as western coal and natural gas. I believe that the high cost and limited availability of commercially ready clean coal technologies, as well as the short time period for compliance, have been factors in utility decisions to fuel switch for Phase I compliance.

The impact of Phase I fuel switching on the Illinois coal industry has been far reaching. In 1994, utility coal purchases of Illinois coal dropped 6.5 million tons from previous levels -- more than 10 percent of Illinois' annual production. I anticipate another decline of similar magnitude to occur in 1995. Forecasts for the year 2000 indicate that Illinois will loose more than one-third of its coal markets and, hence, coal production. The socioeconomic ramifications for the people of Illinois will certainly be great.

As I look ahead to Phase II implementation of the Clean Air Act Amendments, I am comforted by my belief that technology will provide solutions to the problems of high sulfur in our Illinois coal. The State has supported this concept with the establishment of the Illinois Clean Coal Demonstration Program in 1978 and the Illinois High-Sulfur Coal Research Program in 1982. With DOE as a major partner with the State and private interests, these programs have made significant progress towards solving problems associated with burning high-sulfur coals. Today, the future of the Illinois coal industry hinges on our ability to bring affordable and effective clean coal technologies to marketplace.

Recent announcements of pending cuts in the DOE budget cause me great concern. It appears that Illinois coal programs could take the brunt of DOE budget cuts. Progressive cuts in DOE cost share participation in the Illinois High-Sulfur Coal Research Program have reduced Federal funding from past levels of $1.5 million per fiscal period to $1 million in FFY94 and $500,000 in FFY95. Anticipated rescissions in the FFY95 budget could further reduce Federal participation in this program to $425,000. While Illinois funding of this program is sufficient to maintain this program, these Federal cuts directly limit the number and scope of coal research grants issued each year.

I am similarly concerned about continued Federal support of ongoing clean coal demonstration programs in Illinois. DOE's Clean Coal Technology (CCT) Demonstration Program awarded only three projects to Illinois in Rounds I and II. No CCT projects were awarded to Illinois in Rounds III, IV or V of the program. However, we have been able to obtain Federal support for two Illinois projects -- the IGT Kerr-McGee MILDGAS demonstration and the Combustion 2000: Low-Emissions Boiler System -- through other DOE Fossil Energy Programs. With the completion of the earlier CCT projects, these two projects now spearhead the Illinois Clean Coal Demonstration Program.

The first of these, the IGT-Kerr McGee MILDGAS Coal Gasification Project, was begun in 1991 and has a projected completion date in 1996 (FFY97). Substantial State and Federal monetary resources have been spent on the project thus far. Significant progress has been made to date in the development and demonstration of this coal refinery concept. We are grateful for the House Appropriation Committee support and hope for continued funding of this project through its two-year completion.

The second project of great importance to the Illinois Clean Coal Demonstration Program is the Combustion 2000: Low-Emission Boiler System being developed by Sargent and Lundy. This project will design, develop and build a state-of-the-art power plant to use high-sulfur coal, and has the added benefit supporting an Illinois-based engineering firm. Begun in FY93 with Federal support through the Combustion 2000 program, the project has now entered Phases II and III. Illinois involvement with the project began in 1994 with a commitment to provide $1.99 million in Illinois funds towards Phase II and III. While DOE has authorized the contractors to proceed with this project, cuts to the Combustion 2000 program in FFY96 could halt further development and demonstration of this state-of-the-art power system.

In conclusion, I urge the members of the House Appropriations Committee to provide for the completion of the MILDGAS and the Low-Emission Boiler System projects already well underway. Elimination of Federal support of either project will not only result in its termination, but will certainly compromise the ongoing purpose and efforts of the Illinois Clean Coal Demonstration Program. I also urge DOE's continued participation in the Illinois High-Sulfur Coal Research Program which is providing fundamental research and development into processes for clean coal utilization.

The technologies behind these projects and other clean coal technologies being developed and demonstrated across the nation are essential to the future of the Illinois coal mining industry. If Illinois coal is to play a future role as a significant energy resource, environmentally sound coal combustion technologies must be commercially ready and economically affordable at the turn of the century. Their ultimate deployment in the marketplace depends on continued support by the State of Illinois and the Department of Energy.

TESTIMONY
OF
DR. DENNIS M. BROWN
TECHNOLOGY MANAGER
AIR PRODUCTS AND CHEMICALS, INC.
SUBMITTED TO THE
UNITED STATES HOUSE OF REPRESENTATIVES
HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR
APRIL 7, 1995

I strongly encourage the Subcommittee to provide a $7.2 million FY 1996 appropriation for the Department of Energy (DOE) LaPorte, Texas facility. This appropriation would represent an amount commensurate to the total FY 1995 funding for the facility operations and supporting research and development.

The LaPorte, Texas, Alternative Fuels Development Unit is the centerpiece of the Indirect Liquefaction Program. Its original purpose and subsequent successful operation is to provide the proof-of-concept (POC) testing necessary for industry to assess scale-up and commercialization potential for the indirect production of liquids from coal. Indirect liquefaction involves first the production of a synthesis gas from coal and then the subsequent conversion of that gas to a valuable liquid product such as methanol. Since 1985, Congress and the Department of Energy have invested $25 million to build and upgrade LaPorte to be state-of-the-art.

The original LaPorte mission has diminished in importance as the oil price projections continue to hover around $20-24 per barrel, although there is renewed concern about increasing reliance upon imported oil and its national security and balance of payments impacts. What is little known is the current and potential activities conducted at LaPorte that strongly support the rapidly emerging markets for producing liquids from synthesis gas derived from natural gas, renewables, waste gas streams, and other environmentally disadvantaged feedstocks. This new, growing role for LaPorte should be carefully considered before funding is reduced or eliminated.

DOE has regularly conducted operations at the LaPorte site since 1983. The scale of operations at LaPorte has successfully transferred laboratory bench-scale experimental results into process and economic data at the engineering level, i.e., a level which increases the prospects for technology to be practiced commercially.

From its inception in 1983 through 1990, the LaPorte unit was used to develop the Liquid Phase Methanol (LPMEOH™) technology . This program was aimed at converting carbon-rich synthesis gas, such as that derived from coal or from waste materials such as petroleum coke or bottom-of-the-barrel residual oil, to methanol. This application has appeal both for the power and the refinery processing industries where coproduction of electric power and methanol, for peak power shaving, makes strong economic sense. With support from Chem

Systems, the Electric Power Research Institute, and Air Products, DOE pioneered the LPMEOH™ process introducing first-of-a-kind technology that successfully converted carbon-rich synthesis gas into methanol under economically attractive conditions. Success at LaPorte led to a proposal and subsequent award under the Clean Coal Technology Program, and the LPMEOH™ process is now planned for commercial demonstration at Eastman Chemical's Kingsport, Tennessee, facility.

Let me emphasize that the LPMEOH™ technology can be adapted to most synthesis gas streams -- not just those resulting from coal gasification. Significantly, a growing number of oil companies are now working with DOE and Air Products to develop efficient processes for converting environmentally disadvantaged feedstocks, such as petroleum coke, to methanol for use in MTBE and to other clean burning fuel additives. These activities would not be happening if the opportunity for operations at the LaPorte developmental scale had not existed. Bench-scale experiments alone are insufficient for commercial guarantees of performance.

A large number of industrial companies have recognized the LPMEOH™ technology benefit and have increased their participation and financial commitment to DOE's LaPorte program. Again, the interest is in feedstocks with more immediate application than coal. Natural gas, renewables such as biomass, and bottom-of-the barrel wastes such as petroleum coke and resid, can all be converted to synthesis gas in today's modern, clean and efficient gasification units. The same LaPorte liquid phase approach can then be tailored for use with each feedstock to produce a gas stream to provide optimum conversion and product selectivity. LaPorte has seen a number of successful demonstrations of important technologies including the production of hydrogen from synthesis gas, and, significantly, the generation of dimethyl ether (DME) from synthesis gas through a one-step process. DME is viewed in the industry as a valuable feedstock and has been recently proposed as a clean burning alternative diesel fuel by Amoco. Congress should take pride in the fact that as a direct result of its funding for LaPorte, it was possible for DOE to propose DME as an additive in the formulation of clean burning gasoline and to subsequently demonstrate the one-step DME production process at LaPorte in 1991.

Continued LaPorte funding also enables the production of clean hydrocarbon fuels using the Fischer-Tropsch technology via the Liquid Phase approach. Shell Oil, along with UOP, Statoil, and Exxon, participated in operations at LaPorte in 1992, again in 1994, and expect to return once more in 1996. Once again, these companies are interested in the conversion of natural gas to fuels rather than the conversion of coal, and came to LaPorte because of its unique capabilities. However, the original mission of LaPorte can still be achieved since the technology developed for today's feedstocks will be equally applicable in the future when coal conversion to fuels may become necessary. The existence and resources of the LaPorte unit are the key reasons why private sector companies have committed to pooling their financial and technical capabilities to test new routes to cleaner fuels. Private sector funding to date for LaPorte operations is over $5 million.

DOE's Alternative Fuels Development Unit at LaPorte is a national resource that can be cost-effectively used to test proof-of-concept approaches for producing clean fuels and high value additives via synthesis gas produced not only from coal, but also from natural gas, renewables, and environmentally disadvantaged feedstocks such as petroleum coke or bottom-of-the-barrel residual oil. Congress is to be commended for its foresight and past support for the LaPorte Alternative Fuels Development Unit, but the "indirect liquefaction" budgeting label is now very misleading. The new focus on clean fuels, process waste reduction and natural gas and the demonstrated successes of the LaPorte activities should lead the Subcommittee to reconsider and reverse proposals to terminate proof-of-concept testing at LaPorte. I request that funding of $7.2 million, an amount commensurate with the FY 1995 funding for the facility operations and supporting research and development, be restored in the FY 1996 appropriation.

ABB

March 27, 1995

The Honorable Ralph Regula
Chairman, House Subcommittee on the Interior
B-308 Rayburn House Office Building
Washington, DC 20515

Attn: Chris Topik

Dear Mr. Chairman:

This is to request that as the Interior Subcommittee determines FY 1996 appropriations for the Department of Energy's Office of Fossil Energy that ABB's views on the Department's Low Emissions Boiler System (LEBS) program and Clean Coal Technology Program be considered and made a part of the official hearing record. ABB Inc. is a major US electrical engineering company employing 22, 000 people at 50 manufacturing facilities and 300 sales and service centers throughout the United States.

ABB has partnered with the Department of Energy on six of the Department's 45 Clean Coal Technology projects and on a low-emissions, advanced pulverized coal boiler system for industrial and utility use, called LEBS. ABB believes the nation would derive significant benefit from the completion of these projects and urges congressional support for the following reasons.

LEBS will be used to provide new capacity or replace old steam plants with cost effective, efficient power generation with dramatically reduced emissions from coal. Components of LEBS can be retrofitted into coal fired plants in ozone non-attainment areas (Title I) and in response to Phase II of the Clean Air Act's acid rain title (Title IV). ABB's technologies will provide additional value by addressing these needs at the lowest possible cost. The technologies in ABB's system will reduce air emissions to less than one-fifth of the Phase I Acid Rain requirements (NOX, SOX, particulates and air toxics), increase efficiency thereby reducing CO2 emissions, and reduce the amount of waste produced and water used, without raising electric rates. In addition, it offers high efficiencies, equivalent to the current capabilities of coal based combined cycles, at a fraction of the cost of the more exotic "future" coal technologies.

Commercial export of LEBS looks very promising for Asia, Eastern Europe and other areas of the world where little, if any, environmental safeguards are taken. Funding requirements for this project are $14.5 million, of which 5 million is needed from the DOE in FY 1996.

The Department of Energy's Clean Coal Technology Program has been a major success. The technologies which ABB and other companies are developing will enable the United States and other countries to use their coal resources more cleanly and efficiently and at competitive costs. In fact, these projects reduce emissions to much less than that required by the 1990 Clean Air

ABB Inc.

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Manager, Domestic Government Affairs

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Act amendments. In addition, many have significant export potential, as well as domestic application. In half of the projects, ABB and our team members have paid more than 70% of the cost of the project. And we have good reason to believe that our advanced technology projects are currently the only ones that will be cost and environmentally competitive with natural gas-fired combined cycles.

Attached is a brief description of ABB's six CCT Program projects, which provides the completion date, cost, and highlights, and identifies where the project work is sourced. One of the projects has been successfully completed in 1994, three more will be completed during 1995, and the remaining two, which are more sophisticated technologies, will be completed shortly after the year 2000.

The government funding provided by DOE's CCT Program and for the LEBS project are critical to overcome the huge financial hurdles associatied with demonstrating major, advanced technologies.

The deregulation of the utility industry, coupled with the globilization of competition has resulted in a market environment where the key driving factors are price and reliability/risk aversity. Profit margins for most original equipment manufacturers have shrunk by several fold over the last twenty years to a few percentage points. Despite this, ABB Inc.'s businesses spend $15-$20 million annually on fossil and environmental-related R&D in the US. Yet many of the advanced low emissions and high efficiency "systems" related projects in the Clean Coal Program require hundreds of millions of dollars to demonstrate and commercialize. In most cases this would not be possible without government support. In those few cases where it would be possible, the demonstration and commercialization would be slowed considerably and the US competitive edge would be lost to overseas companies with government support.

On the smaller scale, government R&D support is necessary to mitigate the risk associated with breakthrough technologies, especially given the market aversion to risk. A key example of this is the LEBS project. Government support combined with strong industry support speeds the development time and allows higher risk approaches with substantial benefits to the environment and the economy.

ABB urges the Subcommittees support for the Department's Clean Coal Program and the LEBS projects.

Sincerely,

Susan C. Moya

Susan C. Moya

attachment

ABB Clean Coal Technology Demonstration Program Highlights:

Development of the Coal Quality Expert: Mid - 1995 completion date, $22M (50% DOE). Involved ABB CE (Windsor, CT), Black and Veatch (Kansas City, Kansas), University of North Dakota (Grand Forks, ND), EPRI (Homer City, PA), B&W (Alliance, Ohio), Alabama Power (Wilsonville, AL), Miss. Power (Gulfport, Miss), Northern States Power (Bayport, MN), Penn. Electric (Springdale, PA), Public Service of OK (Oologah, OK).
Highlights: Bringing the Information Age to coal technology, a series of pilot and field e tests were performed and analyzed resulting in a software package. The software package enables power plant owners to select the optimum coals at the lowest price for their specific boilers to reduce sulfur and nitrogen oxide emissions.

Tidd PFBC Demonstration: March, 1995 completion, $194M (31% DOE). Involved AEP Service Corp (Brilliant, Ohio), ABB and B&W (Alliance, Ohio).
Highlights: Demonstration of a new technology, pressurized fluid bed combustion (PFBC), which has the attributes of high efficiency and **naturally** low emissions, at the 70 Mw scale. Its modularity enables utilities to add increments of capacity economically to match load growth and it is applicable to both new power plants and to extend the life and also lower the emissions of existing power plants.

PFBC Utility Demonstration: Operation by 2000. Completion by 2004. $820M (23% DOE). Includes AEP Service Corp (Columbus, OH) working on their own project and in partnership with other potential hosts and ABB.
Highlights: Will demonstrate PFBC at 340 Mw, a four-fold scaleup of the technology, which is essential to ensure commercial success. Included in this demonstration will be the integration of a re-heat steam cycle to further improve efficiency. PFBC demonstration issues involve economic generation cost with clean air compliance through repowering. PFBC benefits include state-of-the-art emissions, fuel flexibility, low fuel costs and high efficiency. There is potential to create about 100,000 related jobs by the end of the next decade.

180 Mw Demonstration of Advanced Tangentially Fired Combustion Techniques for the Reduction of NOx Emissions from Coal-Fired Boilers: Completed 10/93, $9M (49% DOE). Involved ABB CE Services (Windsor, CT), Southern Company Services (Lynn Haven, Fla.).
Highlights: Demonstrated new firing systems reducing NOx emissions as much as 48%; these firing systems have the capability to retrofit most of the 600 pulverized coal tangentially fired utility boilers in the US.

Combustion Engineering IGCC Repowering Project: 2001 Completion, Approx. $500M (26% DOE). Includes ABB Combustion Engineering Systems (Windsor, CT), Shell (Houston, Texas) and TVA (Bellefonte Station - near Scottsboro, AL). Key components to be sourced from Chattanooga, TN and Kings Mountain, NC.
Highlights: Will demonstrate the repowering of a power plant with integrated gasification combined cycle (IGCC) including an advanced state-of-the-art gas turbine. IGCC offers one of the highest efficiencies and lowest emissions of the advanced coal technologies. Approximately 1000 jobs will be associated with this nominal 250 Mw project, with the potential of an

additional 100,000 jobs as the IGCC market matures at the end of the next decade.

SNOx Flue Gas Cleaning Demonstration Project: Completed early 1994, $31M (50% DOE). Involved ABB Environmental Systems (Birmingham. AL) and Ohio Edison (Niles, OH).

Highlights: Demonstrated a new technology which resulted in very high (approximately 95%) removal of both sulfur and nitrogen oxides, with no additional waste products - an important chemical commodity, sulfuric acid, is produced. This technology is applicable to all electric power plants and industrial boilers firing coal, oil or gas. Elimination of additional solid waste (except ash) makes this attractive in urban and other areas where solid waste disposal is an impediment.

KCPL

April 4, 1995

COMBUSTION 2000
LOW EMISSION BOILER SYSTEM
PRAIRIE ENERGY PROJECT

Ms. Deborah Weatherly
Chief of Staff, Interior
Room B-308, Rayburn Office Bldg.
U. S. Congress
Washington, DC 20515

Dear Ms. Weatherly:

As a supporter of the Low Emission Boiler System program, I am submitting the enclosed testimony.

Very truly yours,

C. J. Ross

CJR:ca

Enclosure

KANSAS CITY POWER & LIGHT COMPANY
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April 4, 1995

Combustion 2000
Low Emission Boiler System
Prairie Energy Project

Statement to the Subcommittee on Interior Appropriations
U. S. House of Representatives

Kansas City Power & Light Company is an electric utility serving customers in both Missouri and Kansas. As a member of the electric power industry, I am writing on behalf of federal programs which support the advancement and development of power plant technologies. New technologies which produce low cost electricity with high efficiency, high reliability and minimal environmental impact are vital to electric power companies and to the U. S. economy. The Prairie Energy Low Emission boiler System (LEBS) program is one such program. The LEBS program is helping American companies make evolutionary advancements in technologies which will help utilities meet the mounting challenges of deregulation and environmental compliance.

The LEBS program will help ensure that clean and efficient power plant technologies will be available to U. S. utilities from U. S. companies when additional electrical generating capacity will be required in the near future. LEBS is more than a research program. It is helping to bring the next generation of power plants to commercialization. Commercialization of cleaner, more efficient coal-fired power plants will help ensure that the fuel diversity of the U. S. electrical power generation industry is maintained for a secure energy future.

The commercialization goal for LEBS requires a commercial plant design, ready for guarantees at the end of 1998. Therefore, the program has a definitive end at which point the participating companies will have the data needed to construct a new generation of pulverized coal power plants with no further government funding.

FREEMAN
COAL

Freeman Coal Sales, Inc.

P.O. Box 490
Energy, Illinois 62933-0490
618/997-5762

April 3, 1995

Combustion 2000
Low Emission Boiler System
Prairie Energy Project

Ms. Deborah Weatherly
Chief of Staff
Interior
Room B-308
Rayburn Office Building
U.S. Congress
Washington, D.C. 20515

Dear Ms. Weatherly:

As a supporter of the Low Emission Boiler System program, I am submitting the enclosed testimony.

Yours very truly,

Bryan Galli

B. Galli

FREEMAN
COAL

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P.O. Box 490
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April 3, 1995

Combustion 2000
Low Emission Boiler System
Prairie Energy Project

Statement to the Subcommittee on Interior Appropriations
U.S. House of Representatives

Freeman United Coal is a coal company in Illinois. As a member of the coal industry, I am writing on behalf of federal programs which support the development of coal based power plant technologies. The Low Emission Boiler System Program (LEBS), sponsored by the U.S. Department of Energy is one of these important programs.

Coal is our nation's most abundant energy resource and over one million Americans are employed in coal-related industries. However, in recent years, stricter environmental regulations have contributed to a decrease in the use of this important resource by requiring retrofits of equipment onto existing power plants. This cleanup equipment, while reducing emissions of pollutants, have contributed to an increase in the cost of generating electricity with coal. New technologies which produce low-cost electricity with high efficiency, high reliability and minimal environmental impact are vital to electric utilities, coal companies, and the U.S. economy. The LEBS program is helping American companies to develop integrated emission control technologies to utilize coal cleanly and efficiently.

The LEBS program was designed by the Department of Energy to develop new power plant designs which will be commercially available by the end of the decade. Technologies like LEBS will ensure that coal remains an economically viable energy alternative, securing America's energy independence and preserving American jobs.

Illinois Department of Energy and Natural Resources

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John S. Moore, Director

April 5, 1995

Combustion 2000
Low Emission Boiler System
Prairie Energy Project

Ms. Deborah Weatherly
Chief of Staff
Interior
Room B-308
Rayburn Office Building
U.S. Congress
Washington, D.C. 20515

Dear Ms. Weatherly:

As a supporter of the Low Emission Boiler System program, I am submitting the enclosed testimony.

Yours very truly,

Paul Pierre-Louis
Project Engineer
Office of Coal Development & Marketing

April 5, 1995

Combustion 2000
Low Emission boiler System
Prairie energy Project

Statement to the Subcommittee on Interior Appropriations
U.S. House of Representatives

Illinois Department of Energy and Natural Resources is a state agency dedicated to the utilization of Illinois' natural resources. I am writing on behalf of federal programs which support the development of coal based power plant technologies. The low Emission Boiler System Program (LEBS), sponsored by the U.S. Department of Energy is one of these important programs.

Coal is our nation's and Illinois' most abundant energy resource and over one million Americans are employed in coal-related industries. However, in recent years, stricter environmental regulations have contributed to a decrease in the use of this important resource by requiring retrofits of equipment onto existing power plants. This cleanup equipment, while reducing emissions of pollutants, have contributed to an increase in the cost of generating electricity with coal. New technologies which produce low-cost electricity with high efficiency, high reliability and minimal environmental impact are vital to electric utilities, coal companies, and the U.S. economy. The LEBS program is helping American companies to develop integrated emission control technologies to utilize coal cleanly and efficiently.

The LEBS program was designed by the Department of Energy to develop new power plant designs which will be commercially available by the end of the decade. Technologies like LEBS will ensure that coal remains an economically viable energy alternative, securing America's energy independence and preserving American jobs.

Statement of
Richard Shockley
Director, Illinois Clean Coal Institute
Before the
Subcommittee on Interim and Related Agencies
Appropriation Committee
March 24, 1995

The Illinois Clean Coal Institute (ICCI) appreciates the opportunity to testify before the Interior and Related Agencies Subcommittee to present the ICCI views and recommendations for federal funding of research, development, and demonstration (RD&D) programs within the Department of Energy (DOE). These views reflect those of the Illinois Coal Development Board (ICDB), individuals appointed by Governor Jim Edgar to represent the State of Illinois' interest in Coal RD&D. The ICCI is convinced the federal government has a vital role as the primary funder of long-term, basic research and that the DOE, in partnership with industry, has a continuing role in applied energy RD&D. RD&D sets the future direction for development and use of our nation's valuable energy resources.

The role of the federal government in energy RD&D is critical. Federal government's research provides a basis of direction for decision-making by industry as it competes in an increasingly competitive world market. As you review the role of the federal government in energy RD&D, I would urge you to recognize:

1. The need for support of fundamental/basic research (novel ideas) as well as applied RD&D toward commercialization.
2. The need for a reasonable transition period as federal budgets are reduced.
3. The need to adhere to a consistent policy across all energy sectors.

Both our present national prosperity and our future economic development are dependent upon the availability of low cost energy, most of which is derived from coal. In 1994, approximately 57% of electrical power was produced from coal. Neither natural gas nor oil can compete in domestic abundance or low cost. The average cost per million BTU paid by utilities in 1994 was $1.36 for coal, versus $2.47 for oil and $2.29 for natural gas. In addition, the cost of coal-derived energy has decreased by almost 20% over the last decade, due entirely to increased productivity in the coal industry.

Through the ICCI and the ICDB, the State of Illinois administers the largest state sponsored coal research program in the United States. Since 1982, this program has invested over $40m in coal research, supporting over 580 research projects at nearly 30 university and research entities nationwide. For every dollar from the federal government, the state match was over four.

The ICDB has approved over $120m supporting 18 coal demonstration projects throughout Illinois. This investment by the state has been supported by $198m from the DOE and over $500m from the private sector. These projects have continued to assist in advancing technologies toward commercialization. Collectively these investments by the state have resulted directly toward the continued use of nearly 4.5m tons of Illinois basin coal, saving more than 1,200 mine jobs and over 5,000 related spin-off jobs. Such a partnership in coal RD&D is exactly what we have, in the past, heard the Congress say is needed.

Fundamental/Basic Research

The federal government must continue to have the primary role and responsibility for long-term funding and managing fundamental/basic research. These novel ideas are the stepping stones for possible large and continuing benefits to society. However, in today's competitive environment, private companies are market driven and, in nearly all instances, cannot convert the benefits derived from research to their bottom lines. Since private industry focuses primarily on annual earning to stay in business, their research is focused primarily on those products or processes that can, in the short-term, increase sales. Therefore, government's role as a primary funder of basic long-term research is both appropriate and essential because private industry will not and cannot fund the level of basic research necessary to achieve national goals and objectives.

Low Emission Boiler System (LEBS) Technology Developments

The DOE is developing the LEBS technology that will provide a new generation of cost effective and energy efficient power plants in the next decade. DOE has been pivotal in nurturing multiple approaches that can achieve the same goals. This program is organized in a manner that should guarantee a **customer driven** successful completion, if funding is continued. Each of the alternative projects being evaluated in this program is a model of **team** effort. Each team is comprised of a collaboration of vendors, A&E's, utilities, the Electric Power Research Institute (EPRI), and DOE. This team insures that key issues are addressed in each phase of the projects and that commercialization proceeds in a customer driven manner. Through this unique program, utilities will be better able to assess the timeliness of the technology and its technical viability in their resource planning for the next century. Without a program such as this, it is unlikely that these technologies will be available to upgrade and replace the aging boilers utilities will rely on ten years from now to serve their customers. The State of Illinois is pleased to show its support for the Riley team, Prairie Energy project in the LEBS program by supplying nearly $2m cost share from coal demonstration funds.

The potential financial benefits of the LEBS program are large compared to the cost of the program. For example, estimates for new base load capacity by Power Engineering (April 1994) range as high as 250 GW by the year 2010. Assume that it's 100 GW, supplied 50% by coal and that the cost performance goals, set by DOE, are met resulting in a 10% reduction in cost of power. The quantifiable financial benefits are:

1. A $1.2 billion per year savings to the nation's power consumers if LEBS is completed or the minimal cost if the program is terminated.
2. A substantial reduction in capital requirements.
3. In addition, the CO_2 emissions are reduced by at least 17%.

Mild Gas

We also would like to acknowledge our support for Mild Gas, a project selected through the competitive process and supported by the state through cost share of $3.8m. This technology offers a potentially more environmentally benign and cost effective way of producing metallurgical coke from coals that would otherwise be unacceptable for coke making. A primary purpose of the current project is to produce sufficient quantities of char for briquetting so that the Mild Gas form coke can be tested and proven in an actual foundry setting, and so that the liquids can be tested by the private sector for optimal uses and marketability as well. Those product quality and performance verifications are necessary to leverage private sector investment for the future commercialization of Mild Gas. We feel it is imperative that projects such as Mild Gas be supported if we are to find new niche markets that will support high sulfur coal such as that mined not only in Illinois but throughout other midwest states as well.

The ICCI and the members of the ICDB wish to thank the subcommittee for the invitation to testify. We welcome the opportunity to work with you as you develop your policies and FY 96 budget recommendations for the coal programs within the Department of Energy. The decisions you make, I believe, will be important not only to the Department, but also to the coal industry and the nation as a whole.

Statement of
Taylor Pensoneau
Vice President, Illinois Coal Association
Before the
Subcommittee on Interior and Related Agencies
Appropriations Committee
April 6, 1995

The Illinois Coal Association, the trade organization representing coal companies operating mines in Illinois, wishes to add its voice to those testifying before the Interior and Related Agencies Subcommittee of the Appropriations Committee in support of federal funding for coal research, development and demonstration (RD&D) programs within the Department of Energy (DOE). The ICA believes that the Federal Government retains a vital role as the primary funding source for long-term basic research in regard to future directions for developing and using our nation's valuable energy resources.

Both our present national prosperity and our future economic development are tied to the availability of low cost energy, most of which is derived from coal. In 1994, approximately 57 percent of the country's electrical power was produced with coal. Neither natural gas nor oil can compete with coal in domestic abundance or on cost. The average cost per million BTU paid by utilities in 1994 was $1.36 for coal, versus $2.47 for oil and $2.29 for natural gas. In addition, the cost of coal-derived energy has decreased by almost 20 percent over the last decade, due entirely to increased productivity in the coal industry.

The State of Illinois currently administers the largest state sponsored coal research program in the United States. Since 1982, this program has invested over $40 million in coal research, supporting over 580 research projects at nearly 30 university and research entities nationwide. For every dollar from the Federal Government the state provided more than four.

Illinois also has approved over $120 million supporting 18 coal demonstration projects throughout Illinois. These projects have been supported by $198 million from the DOE and by more than $500 million from the private sector. These projects have continued to assist in advancing technologies toward commercialization.

Still the Federal Government must continue to have the primary role and responsibility for funding and managing fundamental, long-term basic research. Society receives large and continuing benefits from fundamental research. However, in today's competitive environment, individual private companies are market driven and, in nearly all instances, cannot capture the economic rent associated with any benefits derived from basic research to their bottom lines. Since private industry focuses primarily on annual earnings to stay in business, its research is focused primarily on short-term increased sales. Therefore, government's role as a primary financier of basic long-term research is both appropriate and essential because private industry will not and cannot fund the level of basic research necessary to achieve national goals and objectives.

The ICA welcomes the opportunity to work with the Subcommittee in developing policies and FY 96 budget recommendations for the coal programs within the Department of Energy. The decisions to be made will be important not only to the Department, but also to the coal industry and the nation as a whole.

STATEMENT FOR THE RECORD OF RICHARD L. LAWSON, PRESIDENT, NATIONAL MINING ASSOCIATION (NMA) HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE

Fiscal Year 1996 PROGRAMS

On February 13, 1995, the National Mining Association (NMA) was created through the merger of the National Coal Association (NCA) and the American Mining Congress (AMC). NMA's member companies account for approximately three-fourths of the coal production in the United States, over one billion tons annually, and the vast majority of other minerals including iron ore, copper, gold, silver, uranium, lead, zinc, and phosphate. The purpose of this statement is to present the NMA's views on FY 1996 programs for the following agencies: Office of Fossil Energy (Department of Energy), Bureau of Mines (Department of the Interior), U.S. Geological Survey (Department of the Interior), and the Office of Surface Mining (Department of the Interior).

OFFICE OF FOSSIL ENERGY

The NMA believes that no single technology can solve the challenge of energy efficiency and environmental protection. Therefore, we support the development of a menu of technology options so that individual users can select the technology best matched to their site-specific needs.

Electric Generation Uses: Over 50 percent of the electricity generated in the U.S. is coal-fired. Electricity is the most environmentally benign and efficient end-use energy. Current coal-fired electric power generation units in the U.S. operate at an average 33-35 percent thermal efficiency, with some older units below 30 percent. Advanced systems such as pressurized fluidized bed combustion and gasification/combined cycle systems can increase power generating efficiency to over 40 percent, thereby burning 25 percent less coal to produce the same amount of electricity.

The Clean Coal Technology Program has successfully completed five rounds of solicitations resulting in 45 showcase demonstration projects which are either completed or underway. The NMA strongly advocates the provision of adequate funding to fulfill the Federal government's commitment.

Significant progress has been made in the processes that convert coal to liquid fuels within the Advanced Clean Fuels Research program. Even though the cost per barrel of these liquids does not yet compete with synthetic oil, it is important to maintain a reasonable level of research demonstration of promising systems as an insurance policy against the disruption of imported oil to the U.S.

The Advanced Clean/Efficient Power Systems program must be funded at the levels requested by the Department of Energy. To support these programs, Fossil Energy must also support a strong basic research program which is covered by the Advanced Research &

Technology Program. We strongly support the goal to develop the advanced turbine system, fuel cells, and the development of hot gas clean-up systems, which will allow the gas from the combustion system to be cleaned without lowering its temperature and energy level by quenching it prior to clean-up. The NMA also supports the DOE request for the continued demonstration of coal mine methane emission capture and production utilization of recovered methane.

NMA strongly favors continued funding to assist in the completion of the mild gasification Process Development Unit (PDU) in Illinois. This technology is critical in order to replace traditional coke-making processes soon to be eliminated by impending Clean Air Act requirements and thereby stem future reliance on imported coke from countries that are our steel-making competitors. Of equal importance is the Advanced Pulverized Coal-Fired Power Plant program (the LEBS system) which builds on the solid performance history of conventional pulverized-coal-fired boilers.

Cooperative R&D Program: We believe the Cooperative R&D program with industry at the Western Research Institute in Wyoming and the Energy & Environmental Research Center in North Dakota have value because of their potential for near-term payback. These programs continue to deserve the emphasis placed on them in past years, and should continue to be funded at the FY 1995 level.

National Laboratories: The government can also promote fossil energy R&D by making maximum use of its existing research facilities, including those national laboratories which traditionally have not been highly active in fossil energy. The National Mining Association (as the National Coal Association) took the initiative in August 1990 to create a more effective partnership between the coal industry and the National Laboratories. To date representatives of the coal industry have met with researchers at Argonne, Los Alamos, Oak Ridge and Sandia National Labs as well as Morgantown and Pittsburgh Energy Technology Centers. The partnership's mission is to stimulate, facilitate, and/or coordinate the development and transfer of technology to the coal industry through technical information interactions and future collaborations with the National Laboratories.

U.S. BUREAU OF MINES

The NMA is deeply concerned about the future of programs and activities administered by the U.S. Bureau of Mines (BOM).

During the past two decades, the Bureau of Mines' budget has been steadily whittled to the point where its surviving programs are seriously jeopardized. A further reduction of $20 million has been proposed by the Administration. The cut comes at the expense of mines and mineral programs in such important areas as mining technology, environmental remediation, pollution prevention and control, and health and safety technology.

The NMA supports the national goal of reducing the federal deficit, but also believes that the BOM programs have been singled out to absorb a disparate proportion of reductions.

The minerals industry of the United States is a vital and integral part of the national economy. Minerals, agriculture and energy are the foundation of our economy. The BOM programs greatly assist this basic underpinning of the economy and are an essential building block for sound government policy in this area. The BOM's research arm is the sole federal program focused on addressing the research challenges of the mining industry in such crucial areas as health, safety, and environmental protection. Moreover, it is the exclusive entity engaged in innovative research aimed at improving mineral production and processing technology.

BOM is not engaged in research more appropriate for the private sector. Its work is in those areas where the private sector is restrained from collaborating under the antitrust laws and where no single company could afford to engage in research and remain competitive in its market area.

Beyond BOM's role in research and technology improvement, it has a unique role in gathering, distilling and disseminating vital statistics related to the world minerals industry. This function, which no private concern could perform because of the proprietary nature of much of the information, in addition to its value to the private sector, is used by a wide variety of government entities for critical strategic planning and intelligence assessments related to the economic health and national security of the United States.

The nation has received far more for the taxpayer dollar from the BOM than from most other federal government agencies. Its research has been the foundation for subsequent activities in other agencies and has led to the creation of thousands of domestic jobs.

The mineral information and analysis developed by the BOM is vital for government and public use. The BOM has an intimate knowledge of the industry, its technology and capacity for utilizing new research. This capability simply does not exist elsewhere within the federal laboratory system. It should be retained.

The National Academy of Sciences is currently reviewing the functions and responsibilities of the reorganized and downsized BOM. At a minimum, the results of this study should be reviewed by the Congress before making a decision to disproportionately reduce the agency's budget and effectiveness.

U.S. GEOLOGICAL SURVEY

The NMA is also extremely concerned about the future of the programs and activities administered by the U.S. Geological Survey (USGS). This premier scientific agency is involved in research and programs that are of critical assistance to not only the private sector, but also to the federal and state governments and to local communities. Geoscience research and information play vital roles in a growing range of societal problems.

Federal investments in the geosciences have for decades paid enormous dividends, and the rationale for continued support of geosciences remains strong. For example, there is a demonstrated need for an integrated national effort to provide information about natural resources and geologic hazards.

The Geologic and Groundwater Divisions of the USGS provide high quality and scientifically reliable information that is essential to the United States and its citizens, in particular, in the areas of economic health and national security. This agency is very relevant to a broad range of national goals.

The USGS has a variety of programs and activities that directly benefit the citizens of the nation. It addresses development of natural resources, prepares geologic maps that are extremely useful to both the public and private sectors, it helps maintain healthy water standards and it assists citizens in preparing for emergencies such as earthquakes and floods.

OFFICE OF SURFACE MINING

The NMA believes that a reduction in the Regulation and Technology Appropriation for the Office of Surface Mining (OSM) is appropriate to reflect the agency's reduced role and to eliminate its duplication of state responsibilities under the Surface Mining Control and Reclamation Act (SMCRA). The number of coal mines has declined by more than half since the enactment of SMCRA. In the meantime, states have assumed regulatory responsibility to implement SMCRA in 24 states for 97 percent of the mines and production in the United States. Despite these trends, OSM resource levels for Title V of SMCRA remain well above the levels existing in 1983 when most states assumed primacy. A reduction in appropriation levels for Title V is consistent with the Vice President's Task Force on Reinventing Government recommendations for OSM to close and downsize field offices and adjust staffing levels in view of the declining federal role. Department of the Interior, Accompanying Report of the National Performance Review, pp. 9-12 (September 1993). The reduction of OSM's Title V program must be targeted for the inspection and regulatory activities which duplicate the states' responsibilities. Adequate funding for state regulatory program grants should be maintained, as well as resource levels for OSM's direct permitting activities in federal program states and mine plan approval on federal lands.

The SCMRA Title IV (Abandoned Mine Land program) deserves increased state reclamation program grants particularly in view of the Fund's $1 billion surplus financed by the AML tax paid by the coal industry. Yet, there are opportunities for savings in this program by reducing unnecessary expenditures for administrative expenses particularly at the federal level. The duplication occurring in RAMP and OSM oversight of state AML programs should be carefully scrutinized for savings. Finally, the $5.5 million requested for audit and collection functions appears excessive in view of the fact that the 98 percent of all AML fees are paid voluntarily by the industry. This audit and collection function could be transferred to the Internal Revenue Service which already collects the Black Lung tax.

CITY OF
PORTLAND, OREGON
OFFICE OF PUBLIC UTILITIES

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WRITTEN TESTIMONY OF
MICHAEL D. LINDBERG
COMMISSIONER, PORTLAND, OREGON
CHAIR, URBAN CONSORTIUM ENERGY TASK FORCE
SUBMITTED TO THE
HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE
APRIL 6, 1995

This testimony is submitted on behalf of the Urban Consortium Energy Task Force (UCETF). The UCETF, comprised of representatives of 19 urban jurisdictions, is a subgroup of the Urban Consortium, an organization of the nation's largest cities and counties joined together to identify, develop and deploy innovative approaches and technological solutions to pressing urban issues.

With funding provided by the Department of Energy, Municipal Energy Management Program, the UCETF annually conducts a competitive solicitation to support energy technology application and replication projects performed by local government staffs. The program also emphasizes technology transfer among local governments throughout the United States. Through these twin emphases, the UCETF enhances the ability of local governments to improve energy management and respond to Federal energy programmatic and policy directions.

The Continuing Need for a Focus on Local Government Energy Issues

Major cities and urban counties can -- and indeed, must -- play an instrumental role in developing and implementing policies to improve efficiency and energy supply stability in the United States. Local governments own, operate, and manage large buildings and facilities and large tracts of land, as well as diverse vehicle fleets and mass transit systems; governments design, plan, finance and operate major water, wastewater and solid waste management systems; and local governing bodies enact and regulate local policies, plans and ordinances that affect residential, commercial and industrial development, as well as transportation choices. Urban governments have vital interests in improving the quality of air, water and land. As the level of government closest to the citizens, local governments have the primary responsibilities for providing services to residents and businesses, and strive for means to improve service delivery and the quality of urban life in a time of ever-shrinking resources.

Larger urban governments in particular have found means to utilize energy policy and programs as a tool to help reduce the cost of government and stimulate the local economy, thereby producing more revenues that can be used to deliver much needed services to local populations. Urban governments also are well positioned to serve as the "testbeds" that are essential to develop programs, solutions, and markets for energy efficiency technologies and management practices. Local governments have substantial innovative and technical capabilities, as well as established networks for peer to peer information exchange and technology transfer. Harnessing these resources through the UCETF is an effective implementation tool for U.S. energy policies.

By assisting local governments in identifying and addressing local energy issues, DOE resources through the Municipal Energy Management Program leverage local and private sector in-kind and cost-sharing contributions, typically on as much as a 4:1 basis. The program responds to needs identified by local governments for specific support in addressing and resolving local energy issues. The return on the Federal government's investment is measured in reduced energy consumption, cost savings and environmental improvement in local areas.

The energy and budgetary savings to local governments produced through UCETF-supported programs provide resources for application to other local priorities. Through demonstration of energy efficiency technologies and processes, the program offers a means for reducing energy costs to local businesses and industries, thereby freeing resources for jobs creation and retention and reinvestment for economic growth. The program also supports the development and application of advanced technologies. The UCETF's focus on incorporating sound energy policies into economic development and redevelopment projects provides a path to "sustainable" development in urban areas. At the same time, local areas will realize environmental benefits from improved energy usage.

While Congress has agreed to new self-discipline that should reduce future "unfunded mandates," local governments and state governments continue to face a large number of Federally mandated requirements. The UCETF program directly assists local and state governments in responding to existing mandates. For example, the fleet conversion requirements of the Clean Air Act and the Energy Policy Act will fall heavily on state and local governments. The UCETF program provides local jurisdictions with experience in operating fleet alternative fuel vehicles (AFVs); offers mechanisms for deciding what vehicles are most suited to local applications; and provides peer-to-peer assistance in identifying and selecting among AFV options.

Even in this era of limited budgetary resources, the federal government must maintain a focus on energy efficiency and renewable energy. Support for creation of markets for new technologies and energy management practices is crucial, and the government sector is a key for early technology deployment, evaluation and as an initial target market. Local governments, with crosscutting responsibilities for economic development, environmental protection, and energy management planning, have a key role to play in promoting the adoption of energy and environmental technologies. Solutions tried and tested in local areas should be widely replicated, and transferred among local governments and to the federal government. This is a key aspect of the Municipal Energy Management Program.

The UCETF's 1995 Applied Energy Program

Through the current UCETF program, jurisdictions are conducting specific energy technology application or technology transfer projects addressing locally-identified priorities in the following areas:

Transportation: Projects address a variety of alternative fuel types, as well as alternatives to conventional transportation, infrastructure requirements and regional interests. Chicago is examining biodiesel options in municipal refuse trucks, while Toledo is preparing to demonstrate dedicated compressed natural gas (CNG) police vehicles. Houston is addressing infrastructure issues associated with the conversion to CNG, and Albuquerque is investigating both electric vehicle conversions for local needs and the means to utilize photovoltaic recharging systems. Long Beach, CA, is focusing on means of evaluating and documenting the success of a telebusiness center in achieving the goals of telecommuting (including congestion mitigation and air quality improvement).

Residential Buildings: This priority area focuses on projects addressing housing and community design to minimize energy consumption and meet the needs of residents for space heating and cooling. Dade County, FL, as a part of the post-Hurricane Andrew rebuilding effort, is developing educational materials on energy efficient residential housing options; Portland, OR, is demonstrating the energy saving potential of electronic thermostats in multifamily housing. Memphis is identifying energy consumption reduction potential and developing an energy improvement plan for public housing facilities, along with a financial strategy for implementing the improvement plan.

Utility: Projects focus on lighting issues, including Louisville/Jefferson County, which is examining disposal issues associated with the widespread use of energy efficient lighting systems, and Montgomery County, MD, which is developing and field testing specific innovative building technologies and advanced operating and management practices to "go beyond" lighting retrofits as a means of reducing the energy consumption of local government building stock. Also, Santa Barbara County, CA, will implement and test incentive-based energy policies to encourage energy efficiency in a variety of sectors.

Sustainable Urban Energy Systems: Sustainable urban energy systems encompass more than energy efficiency and conservation. Local governments increasingly are acknowledging that integrating energy use and efficiency into government decisionmaking and programs is the means to a sustainable future. In the current program, Scottsdale, AZ, is developing a sustainable decision support system, designed to enable local decisionmakers to project the future impacts of current energy-related decisions (land use planning, transportation planning, economic development). San Jose, CA, is forming partnerships with the private sector focusing on sustainable practices, offering a process for initiating dialogues with local businesses and others to encourage adoption of energy efficient and environmentally friendly products and services. San Francisco is creating an implementation methodology specifically for sustainable urban policies, by focusing on three model implementation efforts -- a returned savings incentives program, an energy efficient materials purchasing program, and a toxic lighting materials disposal program. Denver is focusing on means of integrating environmental and energy efficiency technologies into the sustainable redevelopment of the recently-closed Stapleton Airport.

Technology Transfer Projects: Seven projects underway refine and replicate previously conducted UCETF-supported work in additional jurisdictions, and develop new approaches. Portland is creating a workbook and training workshops on sustainable business practices for local businesses and industry. Chicago is developing a training program for employee trip coordinators. Philadelphia is working to develop standard model specifications for highly energy efficient LED traffic signals, while Memphis is assessing the performance and benefits of covered sludge storage lagoons as a wastewater treatment method. San Francisco is conducing a direct, hands-on program to transfer its expertise in development and implementation of energy programs to San Diego. Sioux Falls, SD, is implementing a pilot telecommuting program in a small urbanized area. Finally, local jurisdictions in Vermont are developing a site lighting guide for Vermont municipalities, documenting applications for specific lighting technologies that can be helpful to a variety of local governments, both large and small.

In addition to these specific technology transfer projects, the UCETF program features peer to peer exchange and dialogue on a variety of issues, and is concentrating in particular on effectively documenting products available for transfer from prior year programs. Specific efforts are underway in several areas to conduct direct transfer activities to widely share the benefits of federally-supported energy technology development and application programs.

These projects, and others underway through the auspices of the UCETF, demonstrate successful approaches to using market forces to create economic incentives for sustainability; providing incentives for making pollution prevention a common business practice; and linking environmental protection with economic development and creation of jobs. By effectively integrating energy considerations into ongoing emphases in other areas, we can begin to move toward a policy framework that maximizes short and long-term benefits.

Conclusion

The strengths of the UCETF include a diverse membership reflecting the population of urban areas; a focus on application of new technologies/techniques and management practices to deliver local services more efficiently, improve the local revenue base, and create sustainable urban areas; our commitment to development of the capabilities of local government staffs to identify and address energy issues; and the commitment and capabilities to transfer technology among similarly situated urban areas. Our mission is to serve as the **premier catalyst for energy efficiency at the local government level**, both acting as an "urban laboratory" and technology transfer agent. Our vision is for **sustainable energy systems to be in place in cities and counties in the 21st Century**. Our objectives include developing measurable outcomes and evaluation techniques; deploying solutions; broadening technology transfer; and continued focus on local government innovation and technical leadership.

Member Jurisdictions of the Urban Consortium Energy Task Force

Albuquerque
Phoenix
Seattle
Chicago
San Diego
Norfolk, VA
Prince George's Co., MD
Denver
San Jose
Portland, OR
Houston
New York
Hennepin Co., MN
Memphis
Austin
Washington, D.C.
Dade County, FL
Montgomery Co., MD
San Francisco

Energy Priorities for the Northeast-Midwest Region

Testimony for the Interior Appropriations Subcommittee
on the U.S. Department of Energy's Fiscal 1996 Budget

by
Diane DeVaul
Director of Policy
Northeast-Midwest Institute

The lack of traditional energy sources defines the Northeast-Midwest region. Compared to other sections of the country, northeastern and midwestern states produce little oil, natural gas, or coal. As energy importers, they tend to pay high prices. Moreover, with cold winters and older buildings the region's residents consume relatively more energy than the national average.

With these distinctions in mind, this issue brief examines how the federal government's energy policy affects the Northeast-Midwest, and it outlines the region's priorities in the Department of Energy's budget. Several highlights from the report are:

- Efficiency is the Northeast-Midwest's best energy resource, and the region has benefitted from DOE's energy efficiency efforts.
- The agency's budget and federal tax incentives are skewed toward energy producers located in other regions of the country.
- Within DOE's energy efficiency budget, too little attention is paid to the industrial sector, particularly to deploy and implement industrial efficiency technologies.
- Other regional priorities include DOE's State Energy Conservation Program, which provides grants to states for local efficiency priorities, and the Weatherization Assistance Program, which helps low-income households weatherize their homes.

Although industrialists consume 38 percent of the nation's energy, more than any other sector of the economy, the Department of Energy provides only 18 percent of its efficiency budget to the Office of Industrial Technology. In fact, the agency spends a mere 1 percent of its energy conservation budget to deploy industrial efficiency technologies.

Profile of the Northeast-Midwest Region's Energy Use and Resources

Northeastern and midwestern states in 1992 paid $193.8 billion for energy, 41 percent of the nation's total. Energy production in the Northeast-Midwest region totaled a mere $7.4 billion, only 8.2 percent of the nation's total.

Most of the region's oil and gas reserves have long been depleted. Significant amounts of coal are produced in the Northeast-Midwest, but much of it is high in sulphur and production is shifting to the West as Clean Air Act requirements make low-sulphur coal more attractive. Between 1989 and 1993, coal production east of the Mississippi fell 3.6 percent a year, while western coal production grew 3.0 percent a year.

Energy prices vary dramatically among the continental states. Natural gas costs 228 percent more in Connecticut than in Louisiana. Residents of Vermont pay 197 percent more for electricity than do residents of Washington state. Petroleum products cost 55 percent more in Vermont than in Louisiana. Of the 18 Northeast-Midwest states, 13 pay higher-than-average petroleum prices, 17 pay high natural gas prices, and 11 pay high electricity prices. (See Table 2.) These high energy costs drain the region's economy.

Energy Efficiency: the Northeast-Midwest Region's Best Energy Resource

Most of the region's expenditures for energy leave the local economy and benefit producers in other states and countries. Investments in energy efficiency, therefore, could enhance the region's economic vitality. Consider, for instance, the situation in one state: Ohio.

In 1991, Ohio spent $21 billion on energy use, representing 9.2 percent of Ohio's Gross State Product, equal to 1.8 times the state's tax collection for that year. Increasing energy efficiency in Ohio could have a profound impact. According to *Energy Efficiency as an Investment in Ohio's Economic Future*, a recent report by the American Council for an Energy-Efficient Economy:

- A $28 billion investment in cost-effective energy efficiency technologies between 1995 and 2010 would yield a cumulative energy bill savings of $51 billion over that same period, measured in 1990 dollars.

- The investment in energy efficiency technologies would increase the state's employment base by nearly 63,000 jobs by the year 2010. That rise equals the number of jobs supported by the output, expansion, or relocation to Ohio of 400 small manufacturing plants.

Barriers to Energy Efficiency Investment

Despite such benefits, energy efficiency faces several barriers, ranging from distorted federal subsidies to a lack of consumer information and financing. At the federal level, tax subsidies, combined with direct federal research and development spending, continue to favor energy supply options over energy efficiency investments. The president's fiscal 1996 budget, for instance, estimates that tax subsidies for oil and gas production in 1995 will total $1 billion. Washington also spends $495 annually on fossil energy research and development. When combined, these benefits to the oil and gas industry are nearly twice the amount appropriated for energy efficiency.

Some lawmakers want to rescind all federal funding for both energy supply and efficiency programs. Yet without also eliminating tax breaks for oil and gas producers, the federal government simply would increase the advantages that energy-producing states have over energy-dependent ones.

Private Industry Emphasizes the Importance of Technical and Financial Support for Energy Efficient Technologies

The Task Force on Manufacturing, co-chaired by Representatives Bob Franks (R-NJ) and Marty Meehan (D-MA), hosted a briefing on March 31 to consider private industry's perspectives on energy efficiency as a competitiveness strategy. The stories from these companies — a tap and dye producer, a pulp paper manufacturer, glass industry and steel producer — were dramatic.

Greenfield Industries in Massachusetts was on the verge of closing down, when management took the risk of investing in a vacuum furnace technology untried in their industry. Today the plant's production is up 100 percent, its hazardous wastes have been eliminated, and the company is taking back market share from European competitors. The pulp paper company, Rainy River Forest Products, has lowered energy costs by more than 20 percent and poised itself to be a technological leader in the industry. Praxair worked with the Department of Energy's Office of Industrial Technology to advance the use of oxygen in high-temperature furnaces. DOE's venture with Praxair, Corning and the Gallo Glass Company eliminated nitrogen from the furnace, leading to a 90 percent reduction of nitrogen oxide, a 25 percent decrease in particulates, and a 25 percent decline in energy use.

These industry executives stressed the need for technical and financial assistance. Without such assistance, they argued, their firms would not have invested in these efficiency technologies, despite the promise of lower energy costs, reduced pollution and possibly enhanced competitiveness.

Regional Priorities for the Department of Energy

The U.S. Department of Energy's Office of Industrial Technology sponsors several programs to help overcome these barriers, to encourage research and development of energy efficiency technologies, to help energy-intensive industries become more efficient, and to encourage small and medium-sized manufacturers to invest in energy efficiency. Many of these initiatives are critical to the Northeast-Midwest region's effort to increase its industrial efficiency and productivity.

Six major materials and process industries (chemicals, pulp and paper, petroleum refining, food processing, metals, and ceramics and glass) dominate the industrial sector, providing an indispensable link between natural resource extraction and value-added assembly industry, such as the automobile, aerospace, construction, and electronics industries. These industries consume 88 percent of the energy used in industry and produce over 95 percent of the industrial waste and air emissions. DOE's research and development program encourages new, cleaner, more efficient technologies through cost-shared research, development and demonstration in these industries as well as cross-cutting technology areas, such as electric motor systems, process heating and cooling, and power systems.

The National Industrial Competitiveness through Energy, Environment, and Economics (NICE^3), an example of an innovative Office of Industrial Technologies program, works with manufacturers to develop new processes that save energy and prevent pollution. Industries compete for the money, and DOE pays up to half the cost. One NICE^3 initiative helped the 3M Corporation develop a technique to use light to "cure" its paints and other coatings. Like many other companies, 3M had used solvents that produced volatile organic compounds, that in turn contributed to smog. Based on a conservative projection of 10 percent market penetration, 3M estimates the new coatings will eliminate 260,000 tons of VOC emissions every year, or 7.5 percent of the previous total. The low-solvent processes also will reduce carbon dioxide emissions by an estimated 2.2 million tons. By the year 2010, 3M estimates its new coating could save an estimated 25 trillion BTUs — more than all the electricity used in the commercial establishments in Iowa, or the equivalent of 1.3 nuclear power plants.

The State Energy Conservation Program, as mentioned above, provides states with grants to tap their targeted energy efficiency potential. This program encourages states to achieve the widespread adoption of available energy efficiency and renewable energy technologies and practices. The funds support a 5 percent increase in total SECP funds focused on technology deployment activities. Each state has a goal to achieve a 10 percent increase in energy efficiency by the year 2000, as mandated by the State Energy Efficiency Improvement Act of 1990. DOE requires states to report their progress annually. A federal-state team is currently working to define baseline and reporting standards.

Equally important is the Weatherization Assistance Program which weatherizes low-income households' homes, thereby reducing the need for the Low-Income Home Energy Assistance Program (LIHEAP), (See Table 4 for a state-by-state breakdown of Weatherization funding.) This program works in partnership with states and local service organizations to provide proven energy efficiency technologies using local labor to increase the energy efficiency of low-income households--particularly the elderly and disabled. On average a gas heated home saves 18 percent of its gas use. Currently WAP has reached 4.4 million of the 27 million eligible households.

Statement of
Brian Attwood, Vice President, Quality and Technology
LTV Steel Company
Submitted to the
Subcommittee on Interior and Related Agencies
Committee on Appropriations
March 20, 1995

LTV Steel Company appreciates this opportunity to express our support for the President's Budget request for fiscal year 1996 for the Department of Energy's Office of Industrial Technologies project for Demonstration Of Technology For Degalvanizing Steel Scrap.

We support the funding, as requested, for the Argonne National Laboratories/MRI, Inc. (U.S.) program for development of a process to remove zinc from scrap steel. Successful completion of this multi-year effort will result in the following major benefits being realized:

- Decrease in visible emissions from major steel plants.
- Major reduction in land filling rates by large steel plants.
- Recycling/recovery and full reuse of valuable iron and zinc units now going to waste in landfills.
- Reduction in imports of zinc.

The urgency for this program is attested by the active participation by several major steel producers, processors and users including LTV Steel, Bethlehem Steel Corporation, General Motors Corporation and Noranda, Inc. A copy of a supporting letter from General Motors Corporation is attached.

Background

The use of galvanized, that is, zinc coated steels, has expanded dramatically in the last 10 to 15 years, and will continue to grow in the future. Covering the steel with zinc imparts corrosion (rust) protection and allows the creation of products in cars, agricultural units and appliances which are pleasing to the customer and have a long lasting value. A new market for galvanized steel is developing in the housing industry, which is rapidly adapting the use of galvanized steel for framing and structural members in home construction.

The recyclability of steel is impaired by the presence of zinc coatings. Steelmaking processes, which are designed for consumption of recycled scrap, need material originating from industrial use of galvanized steel as well as the "post consumer" scrap generated at the end of the useful life of cars, appliances, agricultural tools, homes, etc. Unfortunately, in the steelmaking processes, when the steel is separated from the zinc, environmental difficulties arise which, at best, cause significant wastage, e.g., land filling of substantial amounts of otherwise high quality iron and zinc. The zinc used to coat the steel at present is lost to landfills in many major steel plants. Recovery potential is nearly equivalent to current U. S. production of zinc, so there is the opportunity for a major reduction in dependence upon imports for this important primary metal.

Technological Solution

The American Iron and Steel Institute (AISI) Technology Committee in 1989 formed a task force of experts from ten companies to examine the problem and to implement a plan for its resolution. A then new chemical process was selected and a group of nine companies*, including a major zinc producer, shared in the cost (about $400,000) of a major industrial evaluation program.

The AISI program was a partial success -- the basic issues and targets were defined. Next, Argonne Laboratory and MRI, Inc. (U.S.) initiated a pilot plant program at a site in Each Chicago, Indiana, based on preliminary work at ANL and the results of the production-scale AISI tests. Early results from the new pilot plant program had been very promising but financial difficulties at MRI forced interruption of the program.

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* LTV Steel, Armco (AK) Steel, Bethlehem Steel, National Steel, U. S. Steel, Wheeling-Pittsburgh, Weirton, WCI.

With new financing and management strength, the ANL/MRI program can be restarted and taken to completion with the remaining funds budgeted for the pilot phase and, if successful, taken to the full-scale industrial "demonstration" stage with DOE support.

Program completion requires the following steps:

- Repair and complete the East Chicago, Indiana Pilot Plant to allow restart and treatment of 1500 NT of automotive (GM, Ford) and other similar industrial galvanized (zinc coated) scrap.

- Full-scale industrial steelmaking tests at LTV Steel's Indiana Harbor Works. This will include a full environmental evaluation.

- Collection and test for recyclability of the zinc removed and recovered at the MRI plant. The testing will occur at Noranda, Inc. and/or other zinc producers' facilities.

- Upon establishment of technical and financial success, design and construction (by a third party) of a full-scale scrap treatment plant in East Chicago (approximately 50,000 NT/mo).

Financing

To date, Department of Energy support for this project, through the Office of Industrial Technologies, has been $500,000 in research money in 1987-91 and $1.0 million in fiscal 1991. Of the initial funding, there is $0.3 million unspent at ANL.

The President's budget for FY '96 for DOE calls for expenditures to support a demonstration project at $1.65 million in FY '96 to be followed by $2.1 million in FY '97 and $1.0 million in FY '98. This further DOE funding would be subject to 100% match by the industrial partners. The total cost of the project is expected to exceed approximately $9 million with the balance coming from the participating companies and research institutions. All of the Government funds would be repaid at a 1.5 factor upon commercial success.

LTV Steel Company encourages the Subcommittee to approve the funding for this project as requested in the President's Budget because it will serve important domestic national interests. It will significantly improve the environmental problems caused by the disposal of unusable zinc-coated steel, it will substantially enhance the recyclability of steel products and it will reduce U.S. dependence on imported zinc. For these reasons, Subcommittee support for this project as presented in the Department of Energy budget is requested.

Mr. Brian Attwood
Vice President
Quality and Technology
LTV Steel Company

March 17, 1995

Dear Mr. Attwood:

General Motors strongly supports the demonstration program for degalvanizing steel scrap, and urges approval of the full $1.65 million requested in the President's FY 1996 budget for Department of Energy support for this program.

General Motors has increased its use of galvanized steel to include virtually all major body panels in its North American products. Other automobile manufacturers are also moving in this direction. The enhanced rust protection from galvanized steel provides improved durability and a longer expected vehicle operating life, thereby reducing the scale of industrial activity required to meet the nation's transportation needs.

Since galvanized steel affords benefits both to our customers and to society, we are pleased that the steel supplier community has joined together to help solve the recycling challenges that have been created through the increased use of this superior material. Larger numbers of vehicles with high galvanized steel content are being retired, and this trend will continue. Successful development of scrap degalvanizing technologies will be important to maintain and increase the high recycling rate that the automobile industry, with the help of its supplier base, has achieved.

Sincerely,

Christopher C. Green

Christopher C. Green, M.D., Ph.D.
Director, Research Technology Partnerships
GM Research and Development Center

BUSEK

Advanced Energy Conversion

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13 March 1995

Mr. Ralph Regula
Interior Appropriations Committee
Room B308
Rayburn House Office Building
House of Representatives
Washington, DC 20515

SUBJECT: Outside Hearings on Energy Programs -- A Statement for the Congressional Record

Dear Sirs:

The purpose of my letter is to document Busek Co. Inc's strongest possible support for the continuation of the DOE Fossil Energy related programs, and the Pittsburgh Energy Technology Center (PETC).

Let me explain why I believe that the fossil related programs, and coal related programs in particular, must be aggressively support by Secretary O'Leary and the appropriate Congressional Subcommittees. Since its inception, the ultimate goal of the DOE coal technology programs has been to provide energy security and independence for the United States, by developing high performance power generating systems to meet the electrical generating demand envisioned in the 21st century. Coal, as the nation's most abundant energy source, represents the only logical self-reliant fuel option available to achieve this purpose. However, the justifiable concerns regarding environmental intrusion require the development of technologies that ameliorate the local, regional and perhaps global environmental effects of coal based power systems. The key to a reduction in primary emission, including carbon dioxide, on a per kW-hr basis, is through an increase in efficiency. In addition, higher efficiency yields synergistic environmental benefits throughout the entire fuel cycle, including reduced mining and transportation, reduced solid wastes, reduced water requirements and a reduction in thermal loadings to water bodies.

As a direct result of the on-going development efforts from the DOE advanced power generating system programs, electric utilities will have a selection of advanced coal based technologies to consider when evaluating new capacity additions. These include:

- Integrated Gasification Combined Cycle (IGCC)
- Atmospheric/Pressurized Fluidized Beds
- Direct Fired Coal Turbines
- Magnetohydrodynamics
- Fuel Cells
- Indirectly Fired Combined Cycles

This impressive menu of system concepts required the DOE to support the development of specially tailored subsystems and components with characteristics lying outside the design range of conventional steam power plants. It is clear that without the long term investment from the DOE, these major advances in existing technology and the accelerated development of the entirely new and innovative approaches would not have been accomplished. Because of this investment, and only with the continued development efforts of the DOE, can we simultaneously reduce emissions and the cost of electricity, thereby ensuring our international competitiveness into the 21st century.

With the need for fossil energy research and development established, the following issues must be addressed. If not the DOE who will assume the leadership role and make the necessary investment? Who will contribute the basic and applied research? With a potentially long-term pay-off and significant technical risk associated with advanced and innovative ideas, we contend that electric utilities (or independent power producers) will not sponsor such activities. Utilities are a tightly regulated industry and have little incentive to take risks since their profits are set by the Public Utility Commissions. As a rule they must be extremely conservative since their number one priority is to deliver uninterrupted power to their customers. If utilities are not positioned to sponsor significant innovative developments, neither will private sector companies that are suppliers to utilities, because the development of advanced fossil fuel power systems and components requires a very large risk investment which cannot be justified without a commitment from customers and a reasonable expectation for a return on investment.

Therefore, the only solution is through the continued sponsorship and leadership of the DOE. The bottom line is not whether we as a nation can afford to make this investment, but whether we can afford not to.

So far, the arguments for sustained fossil energy research have been presented from a national viewpoint. From the narrower, albeit parochial company viewpoint, the case for continued DOE fossil energy development, in particular that of the Pittsburgh Energy Technology Center (PETC), is equally compelling.

I entered into private business nearly 10 years ago, with the "goal" of contributing to our nation's security and energy independence, by focusing on advanced energy conversion systems. What began as a vision has, through time, developed into a small business employing eight highly dedicated scientists, engineers and technicians. I cannot over emphasize how the support and assistance of PETC has contributed to the success that the Busek Co. has achieved. Throughout this time, the expertise, leadership and dedication of PETC personnel has been instrumental in our growth as a business. PETC is, in our opinion, a stand out among the organizations that carry out the DOE fossil energy mission. We have worked closely with their private contractors, technical support staff and in-house research experts on many past and on-going programs. PETC's leadership and management has been exemplary. Their assistance in our on-going SBIR efforts, and most recently through an indirect CRADA agreement to develop and commercialize energy-related innovative components, has been and continues to be crucial in the increasingly competitive global market. I am confident that I speak for many businesses, large and small, who could not be successful in employing literally thousands of Americans, without the continued partnership with the DOE and PETC in particular.

As a taxpayer and businessman, I hope my arguments presented are sufficiently compelling to infuse you with the justification and energy to work with Secretary O'Leary and our Congressional representatives to continue their support for fossil energy related research performed by the DOE field offices.

If I can be of further assistance, please contact me.

Sincerely,

V. Hruby
President

WRI WESTERN RESEARCH INSTITUTE
The University of Wyoming Research Corporation

March 30, 1995

The Honorable Ralph Regula
Chairman
Subcommittee on Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

On behalf of the Western Research Institute (WRI), I request that the following statement be submitted as part of the record of proceedings for the subcommittee's consideration of the Department of Energy's Fiscal Year 1996 fossil energy research and development budget request. At the outset, WRI strongly seeks your support of full funding of WRI's cooperative agreement with the Department of Energy at $5.5 million. This level will support the continuation of the industrial cost-shared fossil energy research program.

WRI employs more than 80 people involved with energy and environmentally-related research and technology development. WRI is located on the campus of the University of Wyoming in Laramie, Wyoming.

I write to urgently request that you reject the Administration's fossil energy research budget request on the basis that it is inconsistent with DOE's stated objectives to encourage cost-sharing by the private sector. We request that you reverse this budget decision that would eliminate the only dedicated cost-shared fossil energy research program within the Department of Energy.

As we prepare for what appears to be a fundamental realignment in the way this country carries out its basic and applied energy research, WRI wants to acknowledge the support we have received in the past from you and your colleagues. Over the past several years, WRI scientists have conducted fossil energy research seeking to enhance the energy value of our nation's energy resources and protect the environment. Today, our industrial cost-share partners research activities include: developing new products for asphalts to enhance our roadway service life, recovering energy from waste products, developing and verifying new combustion technologies and initiating high risk research into new processes and technologies to enhance the use of fossil fuels. These activities provide the base upon which new industries will be built benefiting, national energy security and international competitiveness.

WRI's primary mission continues to be conducting high risk research and demonstrations into ways to provide cleaner and more efficient fossil energy fuels. Unlike other research organizations, WRI has served as a laboratory and implemented Congress' direction, a program that relies on industry cost-sharing of research projects. The mandate we received called for a 50% cost-share. WRI has not only met this challenge but gone beyond the baseline. Today, we are pleased to report that our cost-share partners in many instances are contributing almost 60% of a research project's costs. Clearly, this demonstrates our commitment to the success of this program.

Earlier this year, the Assistant Secretary for Fossil Energy testified before Congress on the importance of cost-sharing. The Assistant Secretary noted that this was a priority for her and the Department as they sought to ensure that those who benefit from federal research contribute to its cost. However, our review of the budget request for the Office of Fossil Energy revealed that only the Cooperative Research program was the only program targeted for elimination. We find it odd, if not inconsistent, that the DOE's stated priority for cost-sharing, is not supported by the Department. Indeed, in a report to Congress, Secretary of Energy Hazel O'Leary detailed the success of this program and her pleasure "with the progress the Institute(s) have achieved in eliciting 50% cost-sharing required from their cosponsoring clients under this initiative."

In fact, reviewing the Department's budget request justification we find that the Department seeks a reduction from the current fossil energy research budget seeks a $9 million reduction in Cooperative Research and Development--bringing to zero the Department's commitment to a program dedicated to industrial cost-share. Upon further reflection, it appears that the Department has decided to place almost the entire burden of fossil energy research spending reductions on this one program that has a proven track record of meeting the Department's goal. Reinventing the way government conducts its business should focus on promoting those programs, like Cooperative Research and Development, that have demonstrated successes.

WRI and the Department entered into the cooperative agreement with an understanding that this would be a multi-year endeavor. Two years remain on this agreement. As of this writing, WRI has received more than $5 million in new letters of intent to conduct cost-shared programs in fiscal year 1996. Continuation of the cooperative agreement program will allow WRI and the Department to complete its mission to fully privatize this element of energy research. More important, ongoing high risk, cost-shared research would be jeopardized without the commitment of federal assistance.

WRI appreciates the importance of finding new ways to reduce the federal government's role and enhance our abilities to do more with less in what can only be termed an austere budget year. This program not only addresses this priority, but also has a proven track record of success. We urge you to recognize the consequences of prematurely terminating this program ,and especially for ongoing cost-shared projects. The commitment of at least $5.5 million to support this program in the coming year will mean the orderly transition of WRI to the private sector as the cooperative agreement was intended to accomplish.

In conclusion, WRI is pleased that the Department of Energy's budget request recognizes the importance of continuing basic research. As we have all learned in recent years, the failure to invest adequately in such research effectively limits our options to ensure a safe and secure energy future.

The industrial partnerships created under the Jointly Sponsored Research Program and the cooperative agreement in general is a key component of a secure energy future. Therefore, we hope you and your colleagues will support the continuation of this important partnership between the Department and WRI to ensure that it evolves into a self-sustaining program in the future.

Sincerely yours,

James G. Speight

James G. Speight
Chief Executive Officer

Statement of
Mr. Richard Sweetser, Executive Director
The American Gas Cooling Center
for the Subcommittee on Interior and Related Agencies
House Committee on Appropriations
March 20, 1995

The American Gas Cooling Center is made up of manufacturers and natural gas companies that are interested in promoting natural gas cooling as an alternative to other air conditioning and cooling choices. We have over 70 gas or gas and electric combination utilities, almost 50 manufacturing members and more than 5 other interested organizations. As a trade associate that works to commercialize new natural-gas fired cooling equipment, the American Gas Cooling Center and its members are very interested in research, development and implementation of the new U.S.-developed natural gas cooling technologies. We support continued and sufficient funding for natural gas cooling by the Department of Energy.

We are encouraged by the President's budget request which calls for $6.75 million in research and development activities for natural gas cooling technologies. The natural gas cooling industry, including both manufacturers and gas companies supports the programs that are requested by the Building Equipment Division at DOE for natural gas cooling. Government and industry are working hand in hand to develop and deploy groundbreaking technologies. DOE is working with all the major heating, ventilation and air conditioning (HVAC) manufacturers to develop the triple effect absorption chiller for use in large commercial buildings. Additionally, the industry is supporting DOE efforts to develop and deploy a new absorption heat pump, developed by DOE and recently licensed by Carrier Corporation, the largest HVAC manufacturer in the world. We are also working together on advanced natural gas cooling concepts.

We fully understand the difficult budget situation you face this year; however, we feel that, even in this climate of reduced government spending, natural gas cooling research should continue to be funded at last year's level: $8.8 million. In FY95, Congress provided funding for DOE to initiate an advanced desiccant program to evaluate desiccant agents and systems for standards development and to work with manufacturers on product improvement. This cooperative program, called USAQ for United States Air Quality, is providing a rationalization of dehumidification agents as used in air conditioning. The ramifications are significant: better indoor air quality and the ability to meet ASHRAE standard 62-89 for outside air requirements while lowering energy costs and usage, as well as the ability to eliminate the use of ozone depleting CFCs. There is currently no way to "count" energy and cost savings for desiccant agents that does not penalize them for acting differently than traditional air conditioning.

A very valid question you all will ask this year in evaluating program funding at DOE is: Why should the Department by involved in this endeavor? It is no longer enough to justify a program based on cost share or national good. Government participation in gas cooling research and development can be justified for a whole host of compelling reasons.

First, the United States has agreed to comply with international agreements to phase out the usage of ozone depleting chloroflourocarbons (CFCs), a chemical used in traditional air conditioning and cooling equipment. In fact, U.S. companies have significantly reduced production of CFCs already and the chemicals are now being imported with extremely high tariffs. In fact, because import tariffs are astronomical, CFCs are a hot black market item. Next to cocaine, CFCs are the second most often illegally imported substance coming into the United States. Natural gas cooling eliminates the need for CFCs and some technologies eliminate the next cooling agent targeted for phase-out -- hydrochloroflourocarbons (HCFCs). This is significant. As American homeowners and businesses need to replace broken equipment in the near future (and even today), alternatives must be made available.

There is a lack of a rational private sector research and development program for a couple of significant reasons. First, most of the major manufacturers, Trane, York, Carrier, etc., produce both gas and electric equipment; therefore, they have little incentive to push one technology over the other, especially when it is the cheaper and easier to continue to sell traditional cooling equipment (until CFCs and HCFCs are no longer available at all). Second, the innovators in the HVAC industry are the small businesses that cannot necessarily pursue robust research and development agendas. When many different manufacturers are working trying to develop similar technologies, it is rational to have government participation to assist in the research common to all involved.

Third, government participation in a desiccant program is probably the best, and perhaps the only, way to provide for rational ratings/standards. An independent entity, such as the government, is needed to evaluate technologies based on performance alone. Usage of desiccant technologies, additionally, appears to be the only HVAC system to significantly improve indoor air quality. The dehumidification function of desiccant systems draws particulate matter, mold, mildew and other bacteria out of the air. After recent sick building syndrome incidences in many commercial buildings, ASHRAE introduced standard 62-89, which requires five times more indoor air be introduced to a building. For conventional air conditioning, this corresponds to a decrease in energy efficiency; desiccant based systems, however, seem to be most energy efficient when large amounts of outdoor air base are utilized. Some of the indoor air quality benefits are as yet unclear and further research is required.

Development of numerous natural gas cooling options also provides for public "goods" such as jobs development, a large export market, and economic stimulus.

Jobs Development: A May 1994 study by Oak Ridge National Laboratories and the

American Council for an Energy Efficient Economy estimates that an increased domestic and international use of natural gas cooling equipment would create a net 270,000 jobs in the period from 1996-2010. This will create $8.3 billion in new wage and salary income through 2010.

Export Market: There is a significant demand for natural gas cooling equipment overseas. According to the above mentioned study, many developing nations are installing natural gas infrastructure instead of electrifying. Additionally, many developing regions, Latin America and the countries of China and India, have significant shortfalls of electricity, necessitating the shutdown of the countries' industrial capability and costing tens of billions of dollars. Natural gas cooling can reduce the need for the expensive electrification of these countries while generating nearly $5.0 billion in net U.S. exports from 1996-2010 is expected.

U.S. DOE participation in bringing natural gas cooling technologies to the market allows for more U.S. citizens to take advantage of the lower life cycle cost of the technologies. This means direct consumer savings and more discretionary income for other expenditures and a boon to the economy.

Other public goods are served by the increased usage of natural gas cooling, which is predicated on a continuing research and development program. Electric utilities save money in cases where they have high summer electric demand rates. Consumers save costs because natural gas in the summer is quite inexpensive compared to electricity. Energy efficiency is served -- measured at the energy source, natural gas cooling is generally twice as efficient as electric alternatives. And finally, the technologies are environmentally benign, creating few if any greenhouse gases.

In conclusion, the American Gas Cooling Center would like to encourage the Subcommittee to seriously consider funding the natural gas cooling program at $8.75 million. a level equal to last year's funding and an increase of $2.0 million over the President's request. It makes little sense for Congress to initiate a desiccant program in FY95 only to see it terminated in FY96. The industry and the programmatic individuals at the Department envision this desiccant program as a three year program. The potential economic and energy benefits are astronomical: halting funding after the first year would be extremely detrimental.

Thank you again for the opportunity to submit testimony to the Subcommittee. Please let me know if I can provide further information.

TESTIMONY OF

JAMES C. CORMAN
GENERAL MANAGER, ADVANCED TECHNOLOGIES
GENERAL ELECTRIC POWER GENERATION

SUBMITTED FOR THE RECORD TO THE

HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE
FISCAL YEAR 1996
UNITED STATES HOUSE OF REPRESENTATIVES

April 7, 1995

Introduction

Thank you for the opportunity to provide this testimony for the record in support of the Department of Energy's request for $44 million for the Office of Fossil Energy to fund the Advanced Turbine System (ATS) Program in FY 1996.

The ATS Program is an industry cost-shared program to develop highly efficient gas turbines for utility and industrial electric power generation. The utility turbine program in which GE is participating is the focus of this testimony. Gas turbines are rapidly becoming the choice for current and future power generation systems. They have gained wide acceptance because they offer efficient fuel conversion and lower-cost electricity. The key to the success of gas turbine systems in the future is a strong technology base focused in three critical areas: advanced gas turbine operating conditions, environmental compatibility and fuel flexibility.

The ATS Program addresses all these critical areas and in addition, as I will explain in greater detail below, the ATS Program can help U.S. companies like GE demonstrate improved utility gas turbine technology for our domestic market. In so doing, the program will support continuing U.S. global leadership in this important technology. U.S. leadership in this technology, in turn, supports thousands of U.S. jobs and will contribute to the U.S. balance of payments.

Status of the Program; Investments Made and Planned

Since this program was begun in 1992, GE was competitively selected and has received $5 million from DOE for development of enabling technologies. GE itself has invested more than $40 million in parallel technology development and machine design activities.

In order to bring an advanced power generation system from a technology readiness status to a demonstration at a utility level, an industrial investment of over $400M would be required. GE has proposed a joint activity with DOE to achieve this objective under the ATS program by 1999 and seeks DOE funds for less than one-third of the total cost. This is a program with a clear set of deliverables and an identified completion date.

However, the Department of Energy's contribution through the ATS Program goes beyond funding. First, DOE's involvement in the demonstration phase reduces the substantial risks inherent in the commercialization of new technologies. This is especially important when dealing with a utility system that must perform reliably and economically. The ATS Program provides a "bridge to commercialization" by sharing the risk with an electricity utility industry that has been buffeted by changes in regulation and the role it plays in servicing the community. Second, the government-industry partnership formed through the ATS Program fosters sharing of information, expertise, and research facilities. This provides suppliers with better information on critical supporting technologies such as materials and coatings. Third, by effective communication to the ultimate users, it has increased customer interest in advanced technologies and enabled users to better assess the costs and benefits of different system options. This, in turn, encourages customer acceptance of advanced technologies like the ATS. Finally, this partnership helps focus university researchers on critical needs because information is more rapidly available about technological challenges met and not met.

Even for a company as large as GE, the challenge involved in bringing to market a new utility system is daunting. With the ATS program, we are convinced that we can develop and commercialize an advanced turbine system sooner and more efficiently. This is why GE has made the ATS Program an integral part of our product development strategy and is relying on the ATS Program to demonstrate the commercial viability of this new and innovative advanced turbine system within four years. The timing for commercialization of this new generation of power system is critical in order to match a market opportunity developing by the end of the decade.

Economic Advantages

The ATS Program will generate U.S. jobs, reduce the trade deficit, reduce energy consumption, and reduce air emissions. Additionally, with the support of the ATS Program, U.S. manufacturers like General Electric will be better able to compete in the global utility turbine marketplace -- a marketplace in which foreign competitors frequently receive significant assistance from their governments.

Although the domestic utility market is considered mature by some observers, a $1 trillion international market in electricity generating systems is expected to develop over the next decade. This country has a large stake in maintaining U.S. global leadership in utility gas turbine technology because tens of thousands of Americans currently work to manufacture natural gas fired gas turbines and to provide components for the manufacture of these turbines. For example, in Greenville, South Carolina, GE Power Systems employs over 2,000 people to manufacture gas turbines, roughly half of which are exported. In Schenectady, New York, another 1,125 people are employed in research and engineering related to gas turbines. Overall, the number of employees directly involved in GE's U.S. gas turbine operations exceeds 5,000. In addition, GE estimates that component suppliers to GE's gas turbine operations employ between 3,000 and 3,700 people. Located around the country, many of these suppliers are small businesses. Put another way, the US Department of Commerce estimates that every $1B of exports support 20000 direct jobs -- GE Power Systems exported $2-3B in products in '94.

The high technology jobs created by this Government/Industry partnership are those which are highly sought by governments worldwide. In this brutally competitive worldwide environment, partnerships of this sort will create high value jobs which will contribute significantly to advances in the US standard of living. This is a critical factor in maintaining support for this newly formed US Government/US Industry partnership.

If foreign utility gas turbine manufacturers are able to obtain superior gas turbine technology, thousands of U.S. jobs will be lost. If the United States is to maintain its leadership in turbine technology, and enhance our nation's economic competitiveness, the ATS Program should be supported.

Fuel Savings and Environmental Advantages

Modern natural gas fired combined cycle systems which are now operating on utility grids can achieve efficiencies as high as 55 percent. Technologies developed through the ATS Program are intended to reach efficiencies of 60% with a capability to evolve to even higher levels. This will produce major reductions in fuel consumption and associated emissions. The Department of Energy has estimated that use of the ATS technology could provide national fuel savings of 1 quadrillion Btu's annually by 2020. These fuel savings will lower energy costs to consumers and enhance the global competitiveness of American industry.

Of importance to United States' energy security interests, the ATS Program will permit greater utilization of domestic natural gas resources to meet domestic power generation requirements. The more efficiently natural gas can be burned to generate electricity, the more competitive natural gas will be in the marketplace and the more likely it is that domestic natural gas will continue to back out imported oil and petroleum products for electricity generation. This enhances our energy security and reduces the outflow of dollars for foreign oil. The Interstate Natural Gas Association of America and the American Gas Association have testified in support of the ATS Program.

Moreover, natural gas fired gas turbines are the cleanest fossil power source. They produce no particulates, ash, heavy metals, toxins, or sulfur oxides. Because combustion is so complete, carbon monoxide emissions are less than 10 parts per million. The advanced Dry Low NOx combustion system which GE has developed and commercialized in a parallel program will be applied to the ATS and oxides of nitrogen will also be controlled to single digit levels. Finally, the high efficiency of the gas turbine system is the best fossil fuel alternative for addressing and meeting potential demands for reduced CO_2 emissions.

This advanced technology will also be fuel flexible. It will be applied to coal fired systems for example, Integrated Gasification Combined Cycle, and will result in a significant performance increase and emissions reduction compared to conventional steam plants.

Conclusion

For all of the foregoing reasons, General Electric strongly supports the ATS Program as a wise investment in the future with near term payoffs. This industry-government partnership will enhance U.S. competitiveness, increase U.S. energy security, and advance our leadership in an important energy technology for decades to come. In the end, the American consumer, the American taxpayer, and U.S. industry will benefit.

WRITTEN STATEMENT OF
JOSEPH N. DARGUZAS
SARGENT & LUNDY

SUBMITTED BEFORE THE SUBCOMMITTEE ON INTERIOR APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
APRIL 6, 1995

Introduction

This testimony concerns fiscal year 1996 funding for the Department of Energy's (DOE) Combustion 2000 Low Emission Boiler System (LEBS), Prairie Energy Project. This written statement is submitted on behalf of Sargent & Lundy, LLC (S&L), a 104 year old engineering firm headquartered in Chicago, Illinois. The LEBS program is a government-industry partnership designed to provide near term solutions to America's long-term energy challenges.

The Prairie Energy Project

Coal is our nation's most abundant energy resource and over one million Americans are employed in coal-related industries. However, in recent years, stricter environmental regulations have contributed to a decrease in the use of this important resource by requiring retrofits of equipment onto existing power plants. This cleanup equipment, while reducing emissions of pollutants, has contributed to an increase in the cost of generating electricity with coal. The development of new coal-fired power plant technologies which produce low cost electricity, while maintaining environmental compliance, are vital to both the coal and electric power industries.

The Prairie Energy Project LEBS team is developing such technologies. The Prairie Energy Project LEBS program is helping American companies develop integrated emission control technologies to utilize coal cleanly and efficiently. By participating in the LEBS program, American companies are making evolutionary advancements in technologies which will help utilities meet the mounting challenges of deregulation and environmental compliance. The Prairie Energy Project LEBS program will help ensure that clean and efficient coal-firing power plant technologies will be available to U.S. utilites from U.S. companies when additional electrical generating capacity is required in the future.

LEBS is more than a research program, it is a partnership between government and industry helping to bring the next generation of pulverized coal power plants to commercialization. Commercialization of cleaner, more efficient coal-fired power plants will help ensure that the fuel diversity of the U.S. electrical power generation industry is maintained for a secure energy future. The Prairie Energy Project team is fully committed to the commercialization of this important technology. In fact, the industry participants in the Prairie Energy Project LEBS program have increased their cost share of the program to help reduce the government's cost.

The LEBS technologies being developed under this program are purposefully similar in concept to existing technologies. The goal of LEBS is to evolve pulverized coal technology to provide a cleaner, more reliable and lower cost power generation technology. Evolutionary advancements in technology offer lower risk than radical departures from time-proven technologies. In today's highly competitive, international power market, companies need to offer proven designs at competitive prices. Such an environment elevates economy over technical innovation. The power generation equipment market in Asia is expected to remain strong for the forseeable future and American companies are ready to compete with European and Asian companies. However, with so many players in one market, low prices are paramount. In order to compete in the international arena, American companies must offer very low prices, requiring low overhead. Such an environment leaves scant resources for research and development. LEBS is providing companies the opportunity to pool limited resources with the government's help to make innovations in pulverized coal technology. Such innovations will help American companies compete in emerging foreign markets, helping to increase American exports and create jobs.

Conclusion

The LEBS program is a government-industry partnership which is helping to develop new technologies for the American energy industry. Government funding of the program allows American companies to leverage the value of limited research and development resources to help develop innovative advancements in coal-fired technolgy. For a rather limited investment, the government will help to preserve and increase jobs in the coal industry, the electric utility industry and the power generation equipment industry. A strong, efficient energy industry means low energy prices for all sectors of the U.S. economy, which encourages growth and increases the international economic competitiveness of the United States people.

Sargent & Lundy and the entire Prairie Energy Project team are fully committed to commercialization of the LEBS technology and with the program benefits in mind, we hope the Subcommittee will support us by continuing to fund this important program.

SUBMITTED BEFORE THE SUBCOMMITTEE ON INTERIOR APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
APRIL 6, 1995

The Prairie Energy Project Team is a diverse group of U.S. energy companies who have been key suppliers of goods and services to the international power generation market for many years. These companies include:

Riley, Inc.	Worcester, MA
Sargent & Lundy	Chicago, IL
Reaction Engineering International	Salt Lake City, UT
ThermoPower Corporation	Waltham, MA

Also, the Prairie Energy LEBS Project Team extends its gratitude to the following companies for their support and guidance as members of the Prairie Energy Project Team Advisory Panel:

Allegheny Power Service Corporation	PA	PacifiCorp	UT
American Electric Power Company	OH	Pennsylvania Electric Company	PA
Delmarva Power & Light Company	DE	PSI Energy, Incorporated	IN
Detroit Edison Company	MI	Public Service Electric & Gas Co.	NJ
Duke Power Company	NC	Salt River Project	AZ
Electric Power Research Institute	CA	Southern Company Services Inc.	AL
Florida Power & Light Company	FL	Southern Illinois Power Co-op	IL
Illinois Clean Coal Institute	IL	Springfield City Water Light & Power	IL
Illinois Dept of Energy and Natural Resources	IL	Tennessee Valley Authority	TN
Illinois Power Company	IL	Texas Utilities Electric Co.	TX
Indiana Department of Commerce	IN	Virginia Power	VA
Indianapolis Power & Light	IN	Arch Coal Sales Company, Inc.	MO
Kansas City Power & Light Company	MO	CONSOL, Inc.	IL
Los Angeles Department of Water & Power	CA	Cyprus Amax	CO
Louisville Gas & Electric Company	KY	Freeman United Coal Co.	IL
Midwest Resources	IA	MAPCO Coal, Inc.	VA
New York State Electric & Gas Corp.	NY	Zeigler Coal Company	IL
Northern States Power	MN		

Written Statement of
William H. Miller, Executive Vice President, Sargent & Lundy
Submitted before the Subcommittee on Interior Appropriations
U.S. House of Representatives
April 6, 1995

This testimony concerns fiscal year 1996 funding for the Department of Energy's (DOE) Combustion 2000 Low Emission Boiler System (LEBS), Prairie Energy Project. This written statement is submitted on behalf of Sargent & Lundy, LLC (S&L), a 104 year old engineering firm headquartered in Chicago, Illinois. The LEBS program is a government-industry partnership designed to provide near term solutions to America's long-term energy challenges.

Coal is our nation's most abundant energy resource and over one million Americans are employed in coal-related industries. However, in recent years, stricter environmental regulations have contributed to a decrease in the use of this important resource by requiring retrofits of equipment onto existing power plants. This cleanup equipment, while reducing emissions of pollutants, has contributed to an increase in the cost of generating electricity with coal. The development of new coal-fired power plant technologies which produce low cost electricity, while maintaining environmental compliance, are vital to both the coal and electric power industries.

The Prairie Energy Project LEBS team is developing such technologies. The Prairie Energy Project LEBS program is helping American companies develop integrated emission control technologies to utilize coal cleanly and efficiently. By participating in the LEBS program, American companies are making evolutionary advancements in technologies which will help utilities meet the mounting challenges of deregulation and environmental compliance. The Prairie Energy Project LEBS program will help ensure that clean and efficient coal-firing power plant technologies will be available to U.S. utilites from U.S. companies when additional electrical generating capacity is required in the future.

LEBS is more than a research program, it is a partnership between government and industry helping to bring the next generation of pulverized coal power plants to commercialization. Commercialization of cleaner, more efficient coal-fired power plants will help ensure that the fuel diversity of the U.S. electrical power generation industry is maintained for a secure energy future. The Prairie Energy Project team is fully committed to the commercialization of this important technology. In fact, the industry participants in the Prairie Energy Project LEBS program have increased their cost share of the program to help reduce the government's cost.

The LEBS technologies being developed under this program are purposefully similar in concept to existing technologies. The goal of LEBS is to evolve pulverized coal technology to provide a cleaner, more reliable and lower cost power generation technology. Evolutionary advancements in technology offer lower risk than radical departures from time-proven technologies. In today's highly competitive, international power market, companies need to offer proven designs at competitive prices. Such an environment elevates economy over technical innovation. The power generation equipment market in Asia is expected to remain strong for the forseeable future and American companies are ready to compete with European and Asian companies. However, with so many players in one market, low prices are paramount. In order to compete in the international arena, American companies must offer very low prices, requiring low overhead. Such an environment leaves scant resources for research and development. LEBS is providing companies the opportunity to pool limited resources with the government's help to make innovations in pulverized coal technology. Such innovations will help American companies compete in emerging foreign markets, helping to increase American exports and create jobs.

The LEBS program is a government-industry partnership which is helping to develop new technologies for the American energy industry. Government funding of the program allows American companies to leverage the value of limited research and development resources to help develop innovative advancements in coal-fired technolgy. For a rather limited investment, the government will help to preserve and increase jobs in the coal industry, the electric utility industry and the power generation equipment industry. A strong, efficient energy industry means low energy prices for all sectors of the U.S. economy, which encourages growth and increases the international economic competitiveness of the United States people.

Sargent & Lundy and the entire Prairie Energy Project team are fully committed to commercialization of the LEBS technology and with the program benefits in mind, we hope the Subcommittee will support us by continuing to fund this important program.

The Prairie Energy Project Team is a diverse group of U.S. energy companies who have been key suppliers of goods and services to the international power generation market for many years. These companies include:

Riley, Inc.	Worcester, MA
Sargent & Lundy	Chicago, IL
Reaction Engineering International	Salt Lake City, UT
ThermoPower Corporation	Waltham, MA

Also, the Prairie Energy LEBS Project Team extends its gratitude to the following companies for their support and guidance as members of the Prairie Energy Project Team Advisory Panel:

Allegheny Power Service Corporation	PA
American Electric Power Company	OH
Delmarva Power & Light Company	DE
Detroit Edison Company	MI
Duke Power Company	NC
Electric Power Research Institute	CA
Florida Power & Light Company	FL
Illinois Clean Coal Institute	IL
Illinois Dept of Energy and Natural Resources	IL
Illinois Power Company	IL
Indiana Department of Commerce	IN
Indianapolis Power & Light	IN
Kansas City Power & Light Company	MO
Los Angeles Department of Water & Power	CA
Louisville Gas & Electric Company	KY
Midwest Resources	IA
New York State Electric & Gas Corp.	NY
Northern States Power	MN
PacifiCorp	UT
Pennsylvania Electric Company	PA
PSI Energy, Incorporated	IN
Public Service Electric & Gas Co.	NJ
Salt River Project	AZ
Southern Company Services Inc.	AL
Southern Illinois Power Co-op	IL
Springfield City Water Light & Power	IL
Tennessee Valley Authority	TN
Texas Utilities Electric Co.	TX
Virginia Power	VA
Arch Coal Sales Company, Inc.	MO
CONSOL, Inc.	IL
Cyprus Amax	CO
Freeman United Coal Co.	IL
MAPCO Coal, Inc.	VA
Zeigler Coal Company	IL

TESTIMONY OF

JAMES C. CORMAN
GENERAL MANAGER, ADVANCED TECHNOLOGIES
GENERAL ELECTRIC POWER GENERATION

SUBMITTED FOR THE RECORD TO THE

HOUSE INTERIOR APPROPRIATIONS SUBCOMMITTEE
FISCAL YEAR 1996
UNITED STATES HOUSE OF REPRESENTATIVES

April 7, 1995

Introduction

Thank you for the opportunity to provide this testimony for the record in support of the Department of Energy's request for $44 million for the Office of Fossil Energy to fund the Advanced Turbine System (ATS) Program in FY 1996.

The ATS Program is an industry cost-shared program to develop highly efficient gas turbines for utility and industrial electric power generation. The utility turbine program in which GE is participating is the focus of this testimony. Gas turbines are rapidly becoming the choice for current and future power generation systems. They have gained wide acceptance because they offer efficient fuel conversion and lower-cost electricity. The key to the success of gas turbine systems in the future is a strong technology base focused in three critical areas: advanced gas turbine operating conditions, environmental compatibility and fuel flexibility.

The ATS Program addresses all these critical areas and in addition, as I will explain in greater detail below, the ATS Program can help U.S. companies like GE demonstrate improved utility gas turbine technology for our domestic market. In so doing, the program will support continuing U.S. global leadership in this important technology. U.S. leadership in this technology, in turn, supports thousands of U.S. jobs and will contribute to the U.S. balance of payments.

Status of the Program; Investments Made and Planned

Since this program was begun in 1992, GE was competitively selected and has received $5 million from DOE for development of enabling technologies. GE itself has invested more than $40 million in parallel technology development and machine design activities.

In order to bring an advanced power generation system from a technology readiness status to a demonstration at a utility level, an industrial investment of over $400M would be required. GE has proposed a joint activity with DOE to achieve this objective under the ATS program by 1999 and seeks DOE funds for less than one-third of the total cost. This is a program with a clear set of deliverables and an identified completion date.

However, the Department of Energy's contribution through the ATS Program goes beyond funding. First, DOE's involvement in the demonstration phase reduces the substantial risks inherent in the commercialization of new technologies. This is especially important when dealing with a utility system that must perform reliably and economically. The ATS Program provides a "bridge to commercialization" by sharing the risk with an electricity utility industry that has been buffeted by changes in regulation and the role it plays in servicing the community. Second, the government-industry partnership formed through the ATS Program fosters sharing of information, expertise, and research facilities. This provides suppliers with better information on critical supporting technologies such as materials and coatings. Third, by effective communication to the ultimate users, it has increased customer interest in advanced technologies and enabled users to better assess the costs and benefits of different system options. This, in turn, encourages customer acceptance of advanced technologies like the ATS. Finally, this partnership helps focus university researchers on critical needs because information is more rapidly available about technological challenges met and not met.

Even for a company as large as GE, the challenge involved in bringing to market a new utility system is daunting. With the ATS program, we are convinced that we can develop and commercialize an advanced turbine system sooner and more efficiently. This is why GE has made the ATS Program an integral part of our product development strategy and is relying on the ATS Program to demonstrate the commercial viability of this new and innovative advanced turbine system within four years. The timing for commercialization of this new generation of power system is critical in order to match a market opportunity developing by the end of the decade.

Economic Advantages

The ATS Program will generate U.S. jobs, reduce the trade deficit, reduce energy consumption, and reduce air emissions. Additionally, with the support of the ATS Program, U.S. manufacturers like General Electric will be better able to compete in the global utility turbine marketplace -- a marketplace in which foreign competitors frequently receive significant assistance from their governments.

Although the domestic utility market is considered mature by some observers, a $1 trillion international market in electricity generating systems is expected to develop over the next decade. This country has a large stake in maintaining U.S. global leadership in utility gas turbine technology because tens of thousands of Americans currently work to manufacture natural gas fired gas turbines and to provide components for the manufacture of these turbines. For example, in Greenville, South Carolina, GE Power Systems employs over 2,000 people to manufacture gas turbines, roughly half of which are exported. In Schenectady, New York, another 1,125 people are employed in research and engineering related to gas turbines. Overall, the number of employees directly involved in GE's U.S. gas turbine operations exceeds 5,000. In addition, GE estimates that component suppliers to GE's gas turbine operations employ between 3,000 and 3,700 people. Located around the country, many of these suppliers are small businesses. Put another way, the US Department of Commerce estimates that every $1B of exports support 20000 direct jobs -- GE Power Systems exported $2-3B in products in '94.

The high technology jobs created by this Government/Industry partnership are those which are highly sought by governments worldwide. In this brutally competitive worldwide environment, partnerships of this sort will create high value jobs which will contribute significantly to advances in the US standard of living. This is a critical factor in maintaining support for this newly formed US Government/US Industry partnership.

If foreign utility gas turbine manufacturers are able to obtain superior gas turbine technology, thousands of U.S. jobs will be lost. If the United States is to maintain its leadership in turbine technology, and enhance our nation's economic competitiveness, the ATS Program should be supported.

Fuel Savings and Environmental Advantages

Modern natural gas fired combined cycle systems which are now operating on utility grids can achieve efficiencies as high as 55 percent. Technologies developed through the ATS Program are intended to reach efficiencies of 60% with a capability to evolve to even higher levels. This will produce major reductions in fuel consumption and associated emissions. The Department of Energy has estimated that use of the ATS technology could provide national fuel savings of 1 quadrillion Btu's annually by 2020. These fuel savings will lower energy costs to consumers and enhance the global competitiveness of American industry.

Of importance to United States' energy security interests, the ATS Program will permit greater utilization of domestic natural gas resources to meet domestic power generation requirements. The more efficiently natural gas can be burned to generate electricity, the more competitive natural gas will be in the marketplace and the more likely it is that domestic natural gas will continue to back out imported oil and petroleum products for electricity generation. This enhances our energy security and reduces the outflow of dollars for foreign oil. The Interstate Natural Gas Association of America and the American Gas Association have testified in support of the ATS Program.

Moreover, natural gas fired gas turbines are the cleanest fossil power source. They produce no particulates, ash, heavy metals, toxins, or sulfur oxides. Because combustion is so complete, carbon monoxide emissions are less than 10 parts per million. The advanced Dry Low NOx combustion system which GE has developed and commercialized in a parallel program will be applied to the ATS and oxides of nitrogen will also be controlled to single digit levels. Finally, the high efficiency of the gas turbine system is the best fossil fuel alternative for addressing and meeting potential demands for reduced CO_2 emissions.

This advanced technology will also be fuel flexible. It will be applied to coal fired systems for example, Integrated Gasification Combined Cycle, and will result in a significant performance increase and emissions reduction compared to conventional steam plants.

Conclusion

For all of the foregoing reasons, General Electric strongly supports the ATS Program as a wise investment in the future with near term payoffs. This industry-government partnership will enhance U.S. competitiveness, increase U.S. energy security, and advance our leadership in an important energy technology for decades to come. In the end, the American consumer, the American taxpayer, and U.S. industry will benefit.

Statement of

Brian Attwood, Vice President, Quality and Technology
LTV Steel Company

Submitted to the

Subcommittee on Interior and Related Agencies

Committee on Appropriations

March 24 1995

Statement of
Brian Attwood, Vice President, Quality and Technology
LTV Steel Company
Submitted to the
Subcommittee on Interior and Related Agencies
Committee on Appropriations
March 20, 1995

LTV Steel Company appreciates this opportunity to express our support for the President's Budget request for fiscal year 1996 for the Department of Energy's Office of Industrial Technologies project for Demonstration Of Technology For Degalvanizing Steel Scrap.

We support the funding, as requested, for the Argonne National Laboratories/MRI, Inc. (U.S.) program for development of a process to remove zinc from scrap steel. Successful completion of this multi-year effort will result in the following major benefits being realized:

- Decrease in visible emissions from major steel plants.
- Major reduction in land filling rates by large steel plants.
- Recycling/recovery and full reuse of valuable iron and zinc units now going to waste in landfills.
- Reduction in imports of zinc.

The urgency for this program is attested by the active participation by several major steel producers, processors and users including LTV Steel, Bethlehem Steel Corporation, General Motors Corporation and Noranda, Inc. A copy of a supporting letter from General Motors Corporation is attached.

Background

The use of galvanized, that is, zinc coated steels, has expanded dramatically in the last 10 to 15 years, and will continue to grow in the future. Covering the steel with zinc imparts corrosion (rust) protection and allows the creation of products in cars, agricultural units and appliances which are pleasing to the customer and have a long lasting value. A new market for galvanized steel is developing in the housing industry, which is rapidly adapting the use of galvanized steel for framing and structural members in home construction.

The recyclability of steel is impaired by the presence of zinc coatings. Steelmaking processes, which are designed for consumption of recycled scrap, need material originating from industrial use of galvanized steel as well as the "post consumer" scrap generated at the end of the useful life of cars, appliances, agricultural tools, homes, etc. Unfortunately, in the steelmaking processes, when the steel is separated from the zinc, environmental difficulties arise which, at best, cause significant wastage, e.g., land filling of substantial amounts of otherwise high quality iron and zinc. The zinc used to coat the steel at present is lost to landfills in many major steel plants. Recovery potential is nearly equivalent to current U. S. production of zinc, so there is the opportunity for a major reduction in dependence upon imports for this important primary metal.

Technological Solution

The American Iron and Steel Institute (AISI) Technology Committee in 1989 formed a task force of experts from ten companies to examine the problem and to implement a plan for its resolution. A then new chemical process was selected and a group of nine companies*, including a major zinc producer, shared in the cost (about $400,000) of a major industrial evaluation program.

The AISI program was a partial success -- the basic issues and targets were defined. Next, Argonne Laboratory and MRI, Inc. (U.S.) initiated a pilot plant program at a site in Each Chicago, Indiana, based on preliminary work at ANL and the results of the production-scale AISI tests. Early results from the new pilot plant program had been very promising but financial difficulties at MRI forced interruption of the program.

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* LTV Steel, Armco (AK) Steel, Bethlehem Steel, National Steel, U. S. Steel, Wheeling-Pittsburgh, Weirton, WCI.

With new financing and management strength, the ANL/MRI program can be restarted and taken to completion with the remaining funds budgeted for the pilot phase and, if successful, taken to the full-scale industrial "demonstration" stage with DOE support.

Program completion requires the following steps:

- Repair and complete the East Chicago, Indiana Pilot Plant to allow restart and treatment of 1500 NT of automotive (GM, Ford) and other similar industrial galvanized (zinc coated) scrap.

- Full-scale industrial steelmaking tests at LTV Steel's Indiana Harbor Works. This will include a full environmental evaluation.

- Collection and test for recyclability of the zinc removed and recovered at the MRI plant. The testing will occur at Noranda, Inc. and/or other zinc producers' facilities.

- Upon establishment of technical and financial success, design and construction (by a third party) of a full-scale scrap treatment plant in East Chicago (approximately 50,000 NT/mo).

Financing

To date, Department of Energy support for this project, through the Office of Industrial Technologies, has been $500,000 in research money in 1987-91 and $1.0 million in fiscal 1991. Of the initial funding, there is $0.3 million unspent at ANL.

The President's budget for FY '96 for DOE calls for expenditures to support a demonstration project at $1.65 million in FY '96 to be followed by $2.1 million in FY '97 and $1.0 million in FY '98. This further DOE funding would be subject to 100% match by the industrial partners. The total cost of the project is expected to exceed approximately $9 million with the balance coming from the participating companies and research institutions. All of the Government funds would be repaid at a 1.5 factor upon commercial success.

LTV Steel Company encourages the Subcommittee to approve the funding for this project as requested in the President's Budget because it will serve important domestic national interests. It will significantly improve the environmental problems caused by the disposal of unusable zinc-coated steel, it will substantially enhance the recyclability of steel products and it will reduce U.S. dependence on imported zinc. For these reasons, Subcommittee support for this project as presented in the Department of Energy budget is requested.

March 17, 1995

Mr. Brian Attwood
Vice President
Quality and Technology
LTV Steel Company

Dear Mr. Attwood:

General Motors strongly supports the demonstration program for degalvanizing steel scrap, and urges approval of the full $1.65 million requested in the President's FY 1996 budget for Department of Energy support for this program.

General Motors has increased its use of galvanized steel to include virtually all major body panels in its North American products. Other automobile manufacturers are also moving in this direction. The enhanced rust protection from galvanized steel provides improved durability and a longer expected vehicle operating life, thereby reducing the scale of industrial activity required to meet the nation's transportation needs.

Since galvanized steel affords benefits both to our customers and to society, we are pleased that the steel supplier community has joined together to help solve the recycling challenges that have been created through the increased use of this superior material. Larger numbers of vehicles with high galvanized steel content are being retired, and this trend will continue. Successful development of scrap degalvanizing technologies will be important to maintain and increase the high recycling rate that the automobile industry, with the help of its supplier base, has achieved.

Sincerely,

Christopher C. Green

Christopher C. Green, M.D., Ph.D.
Director, Research Technology Partnerships
GM Research and Development Center

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American Institute of Mining,
Metallurgical, and Petroleum Engineers

FOUNDED 1871

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Alfred Weiss
Executive Director

March 17, 1995

Ms. Loretta Beaumont
Staff Assistant
Subcommittee on Interior Appropriations
Room B-308
Rayburn House Office Building
Washington, D.C. 20515

Dear Ms. Beaumont:

Please include the attached statement by AIME on behalf of the U.S. Bureau of Mines into the record of hearings of public witnesses concerning the FY 1996 Interior Appropriations bill.

AIME's 80,000 members are the professional scientists and engineers that create many of the advanced technologies in minerals, materials, energy and related environmental issues. The continued strength of the dozens of industrial sectors we represent depends on the continued successful collaboration we have had with Bureau of Mines.

We thank you for the opportunity to place this statement in the record of hearings. If I can be of further assistance, please call me.

Sincerely,

Enclosure
cc: Deborah Weatherly

Member Societies

Society for Mining,
Metallurgy, and
Exploration
Littleton, CO

The Minerals,
Metals &
Materials Society
Warrendale, PA

Iron and Steel
Society
Warrendale, PA

Society of Petroleum
Engineers
Richardson, TX

SUMMARY DESCRIPTION
U.S. BUREAU OF MINES ACCOMPLISHMENTS

The Bureau of Mines is among the most cost-efficient scientific centers of the federal government. As a non-regulatory agency dedicated to solving selected national mining and material related problems, the Bureau generates a steady stream of R&D awards, patents and valued services to government and industry. Designed to complement rather than duplicate industry or other agency efforts, Bureau research continues to benefit almost every area of American commerce, science, investment, governance, safety and health, as one will see below.

The Bureau's mission extends beyond the common conception of minerals and mining. As the economy evolves, the Bureau provides capability lacking in industry or other government agencies in advanced materials, recycling, environmental remediation and resource assessment. After its recent reorganization in response to the National Performance Review, the.Bureau has consolidated its research by creating four Centers of Excellence (with the proposed direct research budgets of each).

Environmental Technology (proposed $41.6 million) - Advanced pollution prevention, remediation and recycling technologies are critical to minimize the staggering costs of America's environmental liabilities. It isn't sensible to reduce government research capabilities uniquely resident in the Bureau when:

- Mine waste make up 40% of our total solid waste, acid mine drainage from over 20,000 mines has contaminated 5,000-10,000 miles of our streams and rivers, and tremendous growth in new mining operations has unknown environmental impacts.

- In-situ (leaching) mining technologies developed by the Bureau could cost-effectively lead to significantly less surface disruption in mining.

- Bureau research developed a way to reduce the hazards from lead-based paints to remove lead from disposed batteries.

- The need to naturally treat industrial and mine wastes has been met with creation of over 1,000 wetlands using the methods developed by the Bureau.

Health and Safety Technology (proposed $36.2 million) - Other industries now seek out Bureau scientists to adapt their safe mining technologies and operational practices for new uses. As these technologies continue to evolve for mining safety, they find innovative uses throughout the economy. Would a responsible industry research department reduce its capability to create technologies to:

- Use ground radar to locate people buried in the Mexico earthquake or locate wreckage components after the USAir crash in Pittsburgh.

- Adapt diagnostic and air quality control procedures for mines to prevent grain dust explosions.

- Develop a cryogenic fire fighting technique for fires in mine waste banks and adapt it to put out fires in landfills and tire heaps.

- Develop "smart" materials for use in buildings that show imminent structural failure.
- Adapt mine safety technology to create effective fire systems and models to predict fires in high-rise buildings.

Materials Research Partnerships (proposed $7.7 million)- Just the opposite of an isolated research facility, the Bureau fully participates in both industry and government research to enhance mining and material. The current relevance and expected demand for its expertise are clear from the following:

- Sought out by states to address problems in acid mine drainage and other environmental issues beyond the state's technical abilities.
- Collaborated with other federal scientists through 71 interagency research agreements.
- Participates in nearly 300 industry cooperative research agreements.
- Conducts research that generated over 500 patents and has received enough prestigious R&D 100 awards to place the Bureau among the top 15 industrial or national laboratory recipients.
- Developed a secondary materials market in partnership with the Great Lakes Council of Governors for an area that makes up 60% of North American manufacturing.
- Developed an advanced video photometer for industrial process control, recognized as one of the most technologically significant new products of last year.
- Developed new lower-cost processes to recycle lead from batteries, neodymium from permanent magnets, aluminum from scrap and platinum from catalytic converters.
- Helping Oregon and Georgia reduce corrosion and potentially extend bridge life by 20 to 30 years.

Mineral information (proposed $25.6 million) - The ability of industry and the U.S. government to effectively function in a global economy that is still largely driven by extraction, processing and trade of natural resources requires reliable and accurate information on minerals stockpiles and processing capacity. The Bureau is the sole source for much of the world's comprehensive mineral data, information no company would collect on a common basis. Last year Congress nearly halved the Bureau's budget devoted to providing this information. Fortunately, the Bureau's data and expertise were still available when the capability didn't exist anywhere else to:

- Evaluate NAFTA, GATT and Mining Law terms during negotiation.
- Support lending assessments of the World Bank.
- Rapidly document and evaluate mineral stockpiles and material production capacity of former Soviet Union during its breakup.
- Provide the only source of data and analysis required to meet the Forest Service's obligation to evaluate and manage acid mine drainage on its lands.
- Provide key data unavailable elsewhere to states for land management.

- Value DOD defense stockpiles to minimize costs and maximize tax payer value.

Few appreciate that Bureau scientists serve as a scientific SWAT team, adapting their unique, mineral-related expertise and data to serve federal and state needs. The accumulated expertise is simply not available elsewhere. For example, Bureau scientists were among those few with the combined skills to:

- Develop hardened armor to save lives in Desert Storm and remediate lead-contaminated soil at military small arms firing ranges.
- Adapt mine monitoring techniques for use in nuclear waste repositories.
- Create a biotechnology breakthrough to selectively recover metals from industrial wastes.
- Develop and patent a process to treat mine drainage water to meet Public Health Service drinking water standards.
- Invent a process that could halve the cost to make the titanium aluminide engine valves essential to meet the requirements of the Clean Car Initiative.
- Monitor the natural settling of the National Cathedral and develop strategies to deal with land subsidence in New Jersey.
- Quickly predict the impact of the Kobe earthquake on materials processing capacity.

These successes are impressive, but we understand there are tough budget choices to make. To the most common budget questions, which should be asked of every government program, the following are some suggested answers:

Won't industry do research and gather data if the Bureau doesn't? Wherever possible, functions of the Bureau have already been assimilated by other agencies or eliminated. However, there are no remaining such functions that industry will pick up or other agencies could efficiently manage. Also it is neither appropriate nor legal for industry to provide essential governmental functions such as public land use assessments for leasing and regulation. Last year Congress cut $8 million, nearly half, of the Bureau's federal lands minerals information capacity. This has compromised the ability of the Forest Service and Bureau of Land Management to carry out their legal responsibility to locate and remediate acid drainage from thousands of abandoned mines on public lands. It also prevents states and federal agencies from developing effective permitting to minimize new pollution. Public land management is a clear governmental role that should not and legally cannot be delegated to the private sector.

Is Bureau of Mines work still relevant in the current economy? The research and service benefits cited above are a fraction of the return on our current $153 million annual investment in the Bureau of Mines. The $360 billion annual contribution to the American economy from production of processed minerals grew 10% in 1994 and is expected to grow faster than the economy as a whole, but only if we develop the technology to make better use of our existing materials. Advanced materials are one of the critical technologies defined as essential for our economy in the 21st century. Given the combined importance of environmental technology, health and safety, materials research and minerals information to that end, the research investment in the Bureau is a sensible bargain. It is also timely. While the Bureau continues its successful recycling and materials research to make better use of our existing materials, we pay more every week to import many of these materials from other countries than it costs to run the Bureau for a year.

If the Bureau is clearly relevant to our future economy is its budget a sound investment? Because its research directly contributes to national productivity, the Bureau is one of the few federal agencies that continues to generate wealth in America. Like few other agencies, it can document lives saved, jobs stimulated and environments restored. Its technologies have even created new or revived dormant industries such as titanium and zirconium. Largely due to Bureau-developed technology, the western U.S. gold mining industry is now five times its size in the mid-80's. The Bureau's entire annual budget is less than one tenth of the increased value it generated for the now $3 billion gold mining industry. That's a good investment.

What happens if Bureau funding is not maintained at the current $153 million level and decreases to the proposed $132.5 million level or less? We know budgets are tight and there is pressure to cut outlays. The Bureau already suffered far more than its share of budget cuts last year. It must be tempting to cut a small program such as the Bureau. However, when one looks closely, the perceived "savings" in budget outlays are merely passed off to American industry and its citizens as increased health costs, reduced agricultural and industrial productivity, inefficient public mineral development, and increased uncertainty to mineral investors and public land regulators. "Saving money" by imposing higher costs on the American people is no less an unfunded mandate than those now precluded by law.

Western Interstate Energy Board
to the
Interior Subcommittee of the
House Appropriations Committee
on the
Proposed FY 96 Budget of the Office of Surface Mining

February 1995

The Reclamation Committee of the Western Interstate Energy Board is pleased to provide you with its views on the proposed Fiscal Year 1996 budget for the Office of Surface Mining. The Reclamation Committee is comprised of the mine reclamation agencies in the five major coal producing states of Colorado, Montana, New Mexico, Utah and Wyoming. These states accounted for 34 percent of the nation's total coal production or 350 million tons in 1994.

For many years, the Reclamation Committee has expressed concern to this and other Congressional committees over the direction of OSM and its budget priorities. We believe progress is being made in redirecting OSM and its budget priorities, but more needs to be done.

However, the downsizing and realigning of OSM needs to be undertaken in a systematic fashion in order to ensure that critical elements of OSM are preserved and state and industry implementation of the Surface Mining Control and Reclamation Act is not undermined. The downsizing and realignment of the agency needs to be done keeping in mind a strategic vision of the appropriate role of OSM. The priority activities of OSM in primacy states are to: (1) fund the federal share of state regulatory program costs; (2) fund abandoned mine land reclamation undertaken by states; (3) provide technical assistance and training to state programs; (4) process amendments to state regulatory programs; and (5) process Secretarial approvals of resource recovery/protection plans for mines on federal lands.

The downsizing trend begun several years ago needs to continue. Abrupt termination of funding could adversely affect the delivery of services to accomplish these priorities in primacy states. In addition, OSM needs to retain direct enforcement staff in non-primacy states and on Indian lands.

With this back drop, we offer the following specific observations and recommendations on funding of Title IV and Title V programs.

Title IV Abandoned Mine Lands

The President's proposed budget for FY 96 continues a long-standing practice of curtailing Abandoned Mine Land (AML) expenditures under Title IV of the Surface Mining Control and Reclamation Act (SMCRA) in order to inflate the AML Fund surplus and use the surplus to offset the deficit. Under the President's plan, the balance in the AML fund which Congress has yet to appropriate will top $1 billion for the first time. As this surplus grows, abandoned mines go unreclaimed.

This Committee needs to be aware that while the proposed budget increases appropriations by $11 million over FY 95 levels, the net effect will only help slow the decline in funds available to states to reclaim abandoned mines.

The proposed AML budget is the type of penny-wise and pound-foolish approach we have seen too much of in recent years. Appropriations from a dedicated revenue stream (a tax on coal) are purposely kept small to offset the deficit. Once the unappropriated balance in the AML Fund builds up, the "surplus" in the Fund is a target for funding programs unrelated to the purpose of the fund. For example, in FY 96, $70 million is proposed to be diverted from the reclamation of abandoned mines to finance the health benefits of retired miners. Finally, by keeping AML appropriations well below collections, there is less on-the-ground reclamation per dollar spent from the Fund. This is because a certain minimum level of expenditures is needed to keep the state AML delivery system in place. As appropriations shrink, a larger percentage of each dollar spent is eaten up by the cost of maintaining the delivery system rather than delivering reclamation on the ground. Thus, over the life of the Fund, less reclamation is achieved. Congress recognized this dilemma when it established a minimum state program level of $2 million.

For western states, which face serious environmental, public health and safety problems from abandoned mines, the President's AML budget proposal is particularly crippling for two reasons.

(1) The small increase in requested AML appropriations ($11 million) will not provide any appreciable assistance in meeting western AML problems.
(2) The President proposes a 25 percent cut in the minimum state program from historical and authorized levels (i.e., from $2 million to $1.5 million). Because of the low level of overall AML appropriations, New Mexico, Utah and possibly Colorado are considered minimum program states.

The Reclamation Committee urges Congress to fund AML activities at a level equal to forecasted collections in FY 96 and designate one-half of the appropriated funds as the states' share under Section 402(g)(1)(A) of SMCRA.

Title V Regulatory Programs

The Reclamation Committee believes that OSM's proposed FY 96 budget for Title V regulatory programs reflects a much-needed redirection of the agency. While we may quibble over the speed of change, we concur with the general direction, which is to downsize the agency. Title V staffing has declined from 747 full-time equivalent (FTE) positions in FY 89 to a proposed

661 FTEs in FY 96, a 12 percent reduction. Total FTEs at OSM have dropped from 1,206 in FY 89 to a proposed 951 FTEs in FY 96, a 21 percent reduction.. With the reorganization of the agency, which we supported and Congress approved in January, this downward trend should continue for several more years.

The Reclamation Committee believes that OSM is coming to the realization, and its budget should increasingly reflect, that states are the primary enforcers of the SMCRA. OSM's role is not to be a second level of regulatory approval, but to review the overall performance of each state and to aid states in their efforts to improve their programs.

To that end, the Reclamation Committee is concerned that the proposed budget may underfund state regulatory grants. Regulatory grants have increased only slightly in six years from $48 million in FY 91 to the requested $52 million in FY 96, an average annual increase of a little over one percent, which is well below the level of inflation. This effective freeze on state regulatory grants cannot continue indefinitely without damaging the effectiveness of the program on the ground.

The Reclamation Committee also believes that other elements of OSM's regulatory program budget do not adequately position the agency to help build the capacity of state programs. In particular, the Committee believes that the proposed budget inappropriately:

- Cuts the "Technical Services, Training, and Research" budget by a greater amount than the "Regulatory Program Operation" budget;

- Shifts some OSM-funded training costs to states; and

- Terminates funding of all research conducted by non-OSM parties to support advances in reclamation technology.

OSM's technical services, training and research programs do more to improve the implementation of SMCRA than any other OSM activities. Many of these activities, such as the development of the Technical Information Processing System (TIPS), implementation of interactive forums to resolve critical technical issues, training on computer applications, and general training, cannot be cost-effectively undertaken by one state alone. The economies of scale which OSM can achieve by aggregating such services to states, as well as its own employees, are significant. There are also benefits from such OSM services which are not readily quantifiable, but are very significant. For example, joint training of OSM and state employees minimizes later friction in implementing the Act. Building the capacity of states, OSM, and the industry to use new technologies, such as electronic permitting, produces better mine plans at lower cost than traditional paper-based permitting. An ongoing joint OSM-State of Wyoming project to develop electronic permitting is a stellar example of the contribution which OSM technical assistance can make in building the capacity of states and the industry. The experience with the development of electronic permitting also highlights the critical role OSM needs to play in the transfer of technology from one state to another and to industry. OSM needs a proactive technical assistance program which integrates the various training and technical assistance tools to help states to continue to improve their programs.

The proposed budget seeks to shift training costs (specifically travel-related training costs) from OSM to states. This would negate the economies of scale which OSM enjoys in securing low-cost travel and limit the benefits of joint OSM-state training. We do believe it is appropriate for OSM to continue to reexamine its training delivery mechanisms to ensure that such training is delivered in the most cost-effective way possible. In some cases, it will be most cost-effective to bring the training to the offices of a state regulatory authority.

OSM has been negligent in fulfilling its responsibility to support research which improves reclamation practices, even though there is a continuing need for this research. Such research would be most effective if conducted at the direction of the states and with the participation of industry. Instead of developing such a program, the FY 96 proposed budget terminates the last of OSM's outside research activities.

The Reclamation Committee urges Congress to direct OSM to give first priority in the expenditure of non-grant funds to proactive technical assistance, training and research which build the capacity of state programs. This includes the agency abandoning its proposal to shift training costs to states. Funds to provide technical services, training and research can be made available from the downsizing of OSM's Regulatory Program Operations and related field operations.

Conclusion

The goal of the Surface Mining Act is to protect citizens and the environment from the hazards of past mining and current coal mining. The downward trend in the number of OSM employees appropriately reflects the minimal role the agency should have in day-to-day enforcement and the growing importance of OSM efforts to build the capacity of states. OSM, however, needs to fully fund front-line state regulatory programs and accelerate the shift of resources from regulatory program operations to technical services, training and research.

The effort to clean up abandoned mines remains badly underfunded. Shrinking funds for state AML programs means less reclamation per dollar of revenue collected. It also results in a growing surplus in the Fund which will be diverted to subsidize activities not contemplated under the Surface Mining Control and Reclamation Act of 1977.

TESTIMONY

of

DR. BERNARD R. HOFFNAR, CHAIRMAN

NATIONAL COALITION FOR
ABANDONED MINE RECLAMATION

Box 57
Defiance, PA 16633
(814)-928-5253

to

THE HOUSE OF REPRESENTATIVES,

APPROPRIATIONS COMMITTEE,

SUB-COMMITTEE on APPROPRIATIONS to
INTERIOR and RELATED AGENCIES

HONORABLE RALPH REGULA, CHAIRMAN

Room 308
Rayburn House Office Building
Washington, DC 20515-0023

MARCH 1995

Thank you for the opportunity to testify before this subcommittee as the president of the **National Coalition For Abandoned Mined Land Reclamation (NCAMLR)**, I am also an elected Township Supervisor for Broad Top Township in Bedford County, Pennsylvania. The NCAMLR is a national grass root organization with members in 20 states. We are deeply concerned with removing past mining scars from the land and waters of this country.

I specifically want to make the committee aware of the need for continued funding for the **Rural Abandoned Mine Program (RAMP)** which is administered by the Natural Resources Conservation Service (NRCS) which is formerly the Soil Conservation Service (SCS).

In 1991 the 101st Congress amended the Surface Mining Control and Reclamation Act as a subtitle under the Budget Reconciliation Act (PL-101-508). The Abandoned Mine Reclamation Act of 1991 established an interest bearing trust fund for the RAMP program. **This fund currently has 95 million dollars in it, earmarked for the RAMP Program, that is not being used for it's intended legislated purpose.**

I would like to know what the committee intends to do with this interest bearing trust fund if the RAMP Program is not funded in F.Y. 1996?

Let me tell you why this program should be fully funded at 25 million for F.Y. 1996 and succeeding years.

Acid mine drainage from abandoned coal mines is the single largest continuous source of water pollution in the country. This foul smelling ugly pollution degrades thousands of miles of streams and in many cases completely destroys all aquatic life. These polluted waters lower rural standards of living and destroy all hope for commercial growth of any kins. The technology exists to clean up these pollution sources, but a cooperative local, state and Federal dedicated effort is needed to make a mine land cleanup happen. That dedication presently exists and can be improved upon, but the future of the Federal commitment is a concern to many coalition members.

Unlike many areas of the country where economic growth is advancing at an encouraging rate, coal mining areas are harbors for high unemployment rates, business failures and poverty. I can say from personal experience that the sociological and economic impact of mine reclamation work breathes new life into impoverished local communities.

The President's zeroing of the RAMP budget comes at a time when more accomplishments are being realized and more partnerships are being developed than ever before to deal more effectively with this issue. Some examples of this include:

- To summit meetings, dealing with AMD, that included government, industry and private groups were held in Johnstown, PA and Morgantown, WVA in October and November 1994.

- Kick-Off of the Appalachian Clean Streams Initiative by the U.S. Department of Interior, Office of Surface Mining and the Environmental Protection Agency. We are proposing the NRCS be made a working partner in this initiative.

- Watershed specific clean-up efforts to deal with abandoned mine reclamation and acid mine drainage remediation.

RAMP either plays or stands to play an important role in all of these efforts.

RAMP has a proven track record, it is an effective program that creates local jobs, stimulates rural development, eliminates safety hazards and reduces acid mine drainage pollution entering our streams, rivers and lakes.

This program is effective for several reasons:

1. **Local input and guidance is provided by county conservation districts** to program managers so that local concerns and priorities are addressed din reclamation.

2. **The program is voluntary,** individuals who own abandoned mine land can request assistance through the RAMP program for technical and financial assistance for reclamation. The voluntary nature of the program creates an air of cooperation that allows for cooperative reclamation efforts that many times provide offsite benefits to other landowners and municipalities.

3. **Landowners have a say in the decision making process** when plans are developed for the reclamation of abandoned mines on their land. When landowners are involved with the planning effort and are exposed to concerns beyond their own properties total reclamation can occur.

In order for this program to continue to make significant, direct and positive impacts on polluted water resources, it must continue to be funded.

Please remember, Gentlemen of this committee, that much of the coal mined in this country was mined before any reclamation laws were in place to protect the environment. This coal was used to open the west, fuel the industrial revolution and win two World Wars. The entire nation enjoys freedoms and economic opportunities from the coal used to propel these American undertakings.

The coal fields of America are still paying a heavy environmental price for these past endeavors. The coal fields helped the country through crucial times of American history, the coal fields now need the help of America through this environmentally crucial time.

March 22, 1995

Subcommittee on Interior Appropriations
Room B 308 Rayburn House Office Bldg.
Washington, DC 20515

We are formally requesting that these resolutions are accepted into the official documentation of the Subcommittee on Interior Appropriations hearing held March 20, 1995.

Please confirm with us when this is complete. Thank you.

Outer Banks Chamber of Commerce

the Outer Banks Chamber of Commerce
Located on the Corner of Ocean Bay Blvd. & Mustian Street, Kill Devil Hills

March 7, 1995

Governor Jim Hunt
State Capitol
116 West Jones St.
Raleigh, NC 27603-8001

Honorable Jesse Helms
United States Senate
402 Dirkson Building
Washington, DC 20510

Honorable Lauch Faircloth
702 Hart Senate Office Building
Washington, DC 20510

Gentlemen:

Enclosed is a Resolution adopted by the Board of Directors of the Outer Banks Chamber of Commerce on March 1, 1995, concerning offshore oil drilling on the North Carolina Outer Continental Shelf.

Thank you very much for your support.

Sincerely,

Robert E. Wells

Robert E. Wells
President

Enclosure

"Your Sign of Welcome on the Outer Banks"
P.O. Box 1757, Kill Devil Hills, NC 27948
(919) 441-8144 or 995-4213, Hatteras toll free
Fax (919) 441-0338

the Outer Banks Chamber of Commerce
Located on the Corner of Ocean Bay Blvd. & Mustian Street, Kill Devil Hills

RESOLUTION

WHEREAS, The Outer Banks Chamber of Commerce is in support of preserving our natural environment of exceptional aesthetic and recreational value to the people of the United States of America, And,

WHEREAS, The Chamber of Commerce has been on record since 1986 opposing offshore exploration and drilling activities, and does not favor North Carolina being included in the offering of any future leasing programs, And,

WHEREAS, The appeal of this natural environment encompassing two National Parks, one State Park, and numerous National, State, Private, and Local wildlife refuges, natural landmarks and nature preserves, is the basis for a tourism industry that is the foundation of an annual regional economy of over 700 million dollars, And;

WHEREAS, The local waters of the Outer Banks support an extensive commercial fishing industry estimated to generate several hundred jobs and over 25 million dollars in revenues, an industry that depends on clean water, And;

WHEREAS, The proposed offering of lease sales to a consortium of oil and gas companies and related onshore and offshore facilities are industrial activities with high potential for severely negative impacts on the activities and appeal that are the basis for our fishing and tourism industries as well as our National, State and Local Parks, refuges and reserves, And,

WHEREAS, The act of drilling alone is an industrial activity with negative environmental impact including the generation of tons of highly poisonous drilling wastes, And;

WHEREAS, The Dare County Land Use Plan discourages any offshore related industry from conducting business in Dare County (a County that holds within its borders 60% open water), and issues such as disposal of drilling mud, oil spill contingency plans, effective EPA enforcement, and human error need to be addressed, And;

WHEREAS, The specific proposed site for the exploratory drilling known as "The Point" is a unique marine habitat of exceptional diversity and consequently one of the most important recreational and commercial fishing sites in the United States and therefore the worst possible location for an industrial activity with negative environmental consequences, And;

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WHEREAS, The United States contains no more than 5% of the world's remaining fossil fuels yet consumes 25% of the world's annual energy production and will remain dependent on foreign energy sources until consumption decreases or energy alternatives to fossil fuels are found, and whereas the addition of the entire potential product for this site will have negligible impact on the United States' economic and security interests and do not materially justify jeopardizing the existing Tourism and Fishing industries or the adjacent National, State, and Local Parks, Refuges and Preserves, And;

NOW, THEREFORE, BE IT RESOLVED that the Outer Banks Chamber of Commerce strongly opposes the offering of the NC Outer Continental Shelf leases in the upcoming 5 year plan. AND FURTHER BE IT RESOLVED that the Outer Banks Chamber of Commerce favors the permanent denial of exploration permits for leases on North Carolina's Outer Continental Shelf, and, if necessary, the Federal buy-back of the leases already sold on the North Carolina Outer Continental Shelf.

Adopted on March 1, 1995, by the
Outer Banks Chamber of Commerce
Board of Directors

By Robert E. Wells
Robert E. Wells
President

STATEMENT OF
DONALD T. LOPEZ, P.E., ACTING NEW MEXICO STATE ENGINEER AND ACTING SECRETARY, NEW MEXICO INTERSTATE STREAM COMMISSION
TO THE
INTERIOR SUBCOMMITTEE
OF THE
UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON APPROPRIATIONS

March 27, 1995

This statement is submitted in support of appropriations to the U.S. Geological Survey to support the continuation of the basic data collection and analysis functions.

A cooperative program has existed since 1925 between the state of New Mexico, acting through the State Engineer and the Interstate Stream Commission, and the U.S. Geological Survey (USGS). This program has served the much needed purpose of providing basic hydrologic data and interpretive hydrologic investigations necessary for the administration and management of New Mexico's scarce water resources. In addition, these purposes are essential in the arid southwest United States to the daily administration of interstate water compacts and the cooperative interstate water quality improvement functions such as the Colorado River Basin salinity control program. Because of the wide variance of fundamental water quality and quantity parameters in the daily and annual hydrology of the southwest, the need for independent technical data collection at the federal level is required.

The traditional functions of the USGS has served these needs and purposes well. A downscaling or elimination of these traditional functions of the USGS would severely hamper the administration and management of water resources within the state, and would likely create general chaos and calamity in the administration of interstate water compacts and international treaties with Mexico.

I fully support and urge careful consideration of the urgent need for appropriations for the continuation of the traditional functions of the USGS in the collection of basic hydrologic data and associated interpretive hydrologic investigations.

The opportunity to present this statement is greatly appreciated.

\rav\colorado\state6.fnl

**AMERICAN
GEOLOGICAL
INSTITUTE**
4220 King Street, Alexandria, VA 22302-1507
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Statement by the
American Geological Institute to the
Subcommittee on Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives

U.S. Geological Survey and
Fossil Energy R&D, Department of Energy
FY 1996 Appropriations

April 1995

Prepared by Craig M. Schiffries and Marcus E. Milling

The American Geological Institute (AGI) appreciates this opportunity to present testimony in support of fiscal year 1996 appropriations for the U.S. Geological Survey and the Department of Energy's Fossil Energy Research and Development Program. AGI is a nonprofit federation of 27 geoscientific and professional associations that represent more than 80,000 geologists, geophysicists, and other earth scientists. In addition, 115 colleges and universities are AGI Academic Associates, and 30 private companies are AGI Corporate Members. Founded in 1948, AGI provides information services to geoscientists, serves as a voice for shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in mankind's use of resources and interaction with the environment.

Social Imperative for Earth Sciences and Resources

Geoscience agencies under the jurisdiction of the Appropriations Subcommittee on Interior and Related Agencies are facing the most serious challenges in their history. Some geoscience agencies have been targeted for complete elimination and the others have been targeted for massive cuts. It would be irresponsible for the federal government to abdicate its legitimate role in supporting geoscience research and information, especially at a time when the United States is beginning to recognize its increasing vulnerability to earthquakes, floods, droughts, water pollution, volcanic eruptions, global environmental change, contamination from waste disposal, and reliance on unstable sources of foreign oil and minerals. The social imperative for the federal government's role in the geosciences is based on the following principles:

- The survival of our society is absolutely dependent on the Earth. The demand and competition for Earth's land, water, energy, and materials continually increases. Furthermore, the impact of natural hazards such as floods and earthquakes will increase as population grows.

- This historic and continuing dependency of society establishes Earth resources as a fundamental public good, reflected in the establishment of a national geologic survey to guide their use. Such surveys have been formed in virtually all nations.
- An integrated national effort is required to provide a coherent and continuing framework for obtaining information about natural resources and geologic hazards. This information is required by the private sector and by government agencies at all levels as the basis for exploration, planning, environmental policy, and land-use decisions.
- The United States has historically met its needs for information about natural resources and geologic hazards through the U.S. Geological Survey and the U.S. Bureau of Mines, and more recently the Department of Energy and the Mineral Management Service.
- We believe an integrated national effort must be maintained to provide information about natural resources and geologic hazards. It is imperative that this effort be as cost effective and efficient as possible.

Federal investments in the geosciences continue to pay enormous dividends, and the rationale for continuing federal support remains strong. When it comes to appropriations for geoscience research and development, nothing less than the survival of our way of life and our planet are at stake.

U.S. Geological Survey

Earth science in the public service is the central mission of the U.S. Geological Survey (USGS). Virtually every American citizen and virtually every federal, state, and local agency benefits either directly or indirectly from USGS products and services. The USGS is internationally recognized for its scientific and technical achievements. AGI supports and encourages the increasing emphasis the USGS places on responding to the changing needs for reliable, objective earth science information, and on the rapid and effective transfer of information and technologies to its user communities.

Recent earthquakes and floods provide powerful reminders of the vital role the geosciences play in an ever growing range of national goals. The magnitude 6.7 Northridge earthquake on January 17, 1994, caused 57 deaths and $30 billion in damage in Southern California. The earthquake that struck Kobe, Japan, on January 17, 1995, caused more than 5,100 deaths and about $100 billion in damage. According to USGS Director Gordon Eaton, the two earthquakes were about equal in magnitude, but "the lower losses in the United States were, in part, because of improved earthquake design incorporating knowledge gained from the U.S. Geological Survey earthquake studies."

The reduction of geologic hazards provides a clear example of linking science and technology to societal goals. The societal benefits of geoscience R&D on earthquakes and other geologic hazards extend to such areas as housing, transportation, commerce, agriculture, and human health and safety. If recent history is a reliable guide, then funds spent on geologic hazards reduction programs will be repaid many times over by reduced losses, reduced loss of tax revenues, and reduced expenditure for federal emergency and disaster relief funds.

The health of the nation's water resources is another prominent national concern. Depletion of surface water and ground water supplies has reached significant proportions in some regions, and ground water contamination is a problem in many communities. The USGS is the primary source of data on the nation's water resources. It contributes to the remarkable levels of public health enjoyed by Americans in all fifty states by monitoring ground water contamination and other threats to our water supplies.

The USGS needs the resources and flexibility to address an evolving mission and adapt to changing national priorities. AGI supports the USGS FY 1996 budget request of $586.4 million, an increase of $14.9 million over the FY 1995 enacted level, but a decrease of $10.6 million below the FY 1994 level. This is a modest investment in the future of our nation and our planet. A failure to maintain our federal investment in the USGS will result in costly tragedies that will increase the federal deficit.

DOE Fossil Energy Research and Development

In 1994, domestic oil production declined to its lowest level since 1946. The United States currently imports more than 50 percent of its total oil demand. Imported oil accounted for about 31 percent of the merchandise trade deficit in 1994. Further decreases in domestic production will exacerbate the trade deficit problem and increase foreign dependence on a resource that is vital to the economic strength and national security of the nation. While research on renewable resources and energy efficiency is critical to America's future, continued research on fossil energy is no less important. The societal benefits of fossil energy R&D extend to such areas as economic and national security, job creation, capital investment, and reduction of the trade deficit.

DOE's fossil energy R&D program is making a significant contribution to development of new technologies required for cost effective development of U.S. oil and gas resources. Reductions in the program would adversely affect the domestic oil and gas industry, particularly small independent producers, and would not be in the best interests of the nation. Several key components of DOE's Fossil Energy programs are discussed below:

- **Reservoir Class Demonstration Program.** Premature abandonment of productive domestic oil fields is one of America's most serious energy problems. The DOE Reservoir Class Demonstration Program focuses on identifying and maintaining economic access to geologic classes of U.S. reservoirs that are in danger of being prematurely abandoned despite the fact they contain large amounts of potentially recoverable crude oil. The program is sponsoring upwards of $300 million of industry cost-shared joint ventures, with the industry share well in excess of 50 percent. It is providing the new technologies required for recovery of billions of barrels of oil in existing fields, rather than from new fields opened in environmentally sensitive regions. Two-thirds of the oil found in the United States will remain unrecovered if only conventional production methods are used. According to a February

28, 1995, report by the National Research Council, "the DOE Field Demonstration Program is proving effective in demonstrating the application of new and existing technologies to prolong the lives of marginal fields."

- **Advanced Computational Technology Initiative.** This program successfully elicited 122 private sector proposals valued at more than $85 million, and is providing a strong link for joint development of advanced technology among the private sector, national laboratories, and universities to address the nation's oil and gas supply needs.

- **Gas Supply Program.** The Gas Supply Program supports the expanding, efficient, and cost-effective use of the "fuel of choice" to achieve the simultaneous benefits of low cost, environmental enhancement, and improved energy security.

- **Geoscience Data Repository System.** Domestic geological and geophysical data are critical to the energy security and economic prosperity of the United States. A consequence of the ongoing downsizing of the U.S. oil and gas industry is that billions of dollars worth of domestic geological and geophysical data are in jeopardy of being irrevocably lost or destroyed. According to many independent oil producers, a national geoscience data repository system would enable them to expand their search for and development of domestic oil and gas resources. The private sector is working with DOE and AGI to assess the feasibility of establishing a national geoscience data repository system for the use of industry, government, and the scientific research community.

- **Technology Transfer.** The historic symbiotic relationship between major oil companies and independent producers has largely disappeared, and independent producers do not have access to existing and emerging advanced exploration, reservoir management, and production technologies. AGI supports DOE's efforts to accelerate the dissemination of these technologies through the Petroleum Technology Transfer Council and other mechanisms so that more domestic petroleum may be produced, and fewer producing fields are abandoned.

AGI supports the Department of Energy's FY 1996 budget request of $436.5 million for Fossil Energy R&D. The budget request calls a decrease of $5.3 million or 1 percent relative to FY 1995 appropriations. Substantial increases in funding for natural gas (25 percent) and petroleum R&D (6 percent) would be offset by a large decrease in coal R&D (26 percent). The oil and gas programs are a small fraction of DOE's total budget. The programs are designed and implemented in concert with industry, and they are providing U.S.-based energy companies with the edge to remain technologically competitive and cost effective in order to develop the nation's oil and gas resources.

AGI Member Societies

- American Association of Petroleum Geologists
- American Association of Stratigraphic Palynologists
- American Institute of Hydrology
- American Institute of Professional Geologists
- Association for Women Geoscientists
- Association of American State Geologists
- Association of Earth Science Editors
- Association of Engineering Geologists
- The Clay Minerals Society
- Council on Undergraduate Research, Geology Division
- Geological Society of America
- Geoscience Information Society
- International Association of Hydrogeologists/U S National Committee
- Mineralogical Society of America
- National Association of Black Geologists and Geophysicists
- National Association of Geology Teachers
- National Earth Science Teachers Association
- National Speleological Society
- Paleontological Society
- Seismological Society of America
- SEPM (Society for Sedimentary Geology)
- Society for Mining, Metallurgy, and Exploration
- Society of Economic Geologists
- Society of Exploration Geophysicists
- Society of Independent Professional Earth Scientists
- Society of Vertebrate Paleontology
- Soil Science Society of America

BOSTON COLLEGE
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April 7, 1995

Honorable Ralph Regula
Chairman
Subcommittee on Interior and Related Agencies
Committee on Appropriations
B-308 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

On behalf of the Weston Observatory of Boston College, please accept this testimony for inclusion in the Hearing Record. The Subcommittee's past support of base level funding of the National Earthquake Hazard Reduction Program (NEHRP) is greatly appreciated by all of us associated with the New England Regional Seismic Network.

Thank you for your on-going support.

Sincerely,

John E. Ebel

John E. Ebel, Ph.D.
Director, Weston Observatory
Professor of Geophysics,
Boston College

cc: Dr. James P. McIntyre, Senior Vice President

TESTIMONY OF DR. JOHN E. EBEL, DIRECTOR
THE WESTON OBSERVATORY OF BOSTON COLLEGE
PROFESSOR OF GEOPHYSICS, BOSTON COLLEGE
FOR THE
HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

Mr. Chairman and members of the Subcommittee, I appreciate this opportunity to submit testimony regarding the importance of the National Earthquake Hazard Reduction Program (NEHRP) in the United States. At this time when all apsects of government spending are being heavily scrutinized, there are several major programs within NEHRP that are vital to safeguarding the welfare of our country. I discuss these here so that you may see how important it is to keep the NEHRP program fully funded.

The most critical work being funded by NEHRP at the present time is the project within the U.S. Geological Survey to produce **new national seismic hazard maps**. These maps will be used in regulations throughout the country to determine the level seismic design necessary for many different kinds of structures, from buildings to highway bridges to hazardous waste landfills. Current seismic design regulations are based on seismic hazard maps that are calculated predominantly using data and theories from the 1970's. Our understanding of the possible locations and sizes of earthquakes from throughout the country is vastly improved over that from the 1970's, thanks in large measure to past NEHRP funding, and seismologists now recognize many areas where the current maps are clearly inadequate in representing the earthquake hazard. For instance, I recently completed a calculation of the seismic hazard of the state of Vermont. I found that my hazard values for northwestern Vermont, including some of the most populous parts of the state, are a factor of 2 higher than those shown on the current USGS national seismic hazard maps. It is my guess that the current USGS maps underestimate the earthquake rates in northern New York state and southern Quebec, thus giving low values compared to those I calculate.

There are now many seismic design regulations or recommended design provisions that use the national seismic hazard maps. The seismic design levels in state and local building codes all are derived from the current USGS national seismic hazard maps. Regulations for the design of roads and bridges to withstand earthquake damage refer directly to the USGS maps. All landfills now must take seismic effects into account in their design, again relying on the USGS maps for guidance in determining how strong the earthquake shaking can be. If the country is to mitigate the effects of future earthquakes, it must ensure that the national seismic hazard maps reflect the latest data and thinking of the seismological community.

Another important NEHRP priority should be the funding of continued **research in support of the national seismic hazard maps**. In particular, the new USGS national hazard maps will reflect many of the important research results from the past decade of funding to both internal USGS investigators and to recipients of external USGS grants. This research has revealed new seismic hazards that were not previously appreciated. During the past decade we have learned that blind thrust faults underlying Los Angeles are capable of quite devastating earthquakes. We have learned that previously unknown damaging earthquakes occurred in prehistoric times in the Pacific northwest, in the Wabash River valley between Illinois and Indiana, and on the northern and southern coasts of South Carolina. All of this work has increased our estimation of the potential for major earthquakes in these areas.

A number of focused studies should be carried out to further refine the seismic hazard in a number of different areas in the country. The search for geologic evidence of major prehistoric earthquakes, called paleoseismology investigations, should be expanded to include New England and the central and southern Appalachians. We need to learn more about what the biggest earthquakes may have been in these areas. We need more extensive studies of the rate of strain accumulation in the continental U.S., particularly in the eastern part of the country. As the tectonic plates move over the surface of the earth, they are strained (squeezed or stretched) due to the forces that are moving the plates. The build-up of strain within the earth reflects the pressures that are accumulating within the rock. This pressure is eventually released in earthquakes. We now have a good history of strain build-up in California and some information on the strain rates in other parts of the Rockies. However, we must better define the strain rates throughout the eastern half of the country. Doing so would provide data on how fast the pressures are building up in the rock in these areas and therefore how often it might be released in strong earthquakes.

Another earthquake phenomenon that has been recognized as a major hazard is the focusing of earthquake waves by the movement on faults. In three recent major earthquakes, 1992 M7.2 at Landers, California, 1994 M6.8 at Northridge, California, and 1995 M6.9 at Kobe, Japan, the fault movements during these earthquakes focused most of the seismic energy in one direction. In the case of the Landers event, the bulk of the seismic energy was focused toward the Mojave desert away from populated areas, and the damage was surprising light compared to the magnitude of the event. Both the Northridge and Kobe earthquakes occurred under major metropolitan areas. The Kobe earthquake fault focused its energy directly at the center of the city, and the damage was catastrophic. The Northridge earthquake focused the bulk of its energy toward the mountains and away from the city, leaving major damage but less than that seen at Kobe. Which earthquakes could potentially display this focusing effect, and the direction in which the energy would be focused, is still being analyzed by seismologists. This work should be continued because it could raise the estimates of the strength of ground shaking that some of our cities could experience in major earthquakes.

Some other types of studies can directly impact the national seismic hazard maps being produced. Estimates of seismic hazard nationally depend on the data about past earthquakes, from the most recent events to the very first events known historically, contained in earthquake catalogs. Recent research has shown that there are records of many historic earthquakes still to be uncovered in historic archives, and a number of earthquakes already in the catalogs have estimated epicenters or magnitudes that are inconsistent with the surviving evidence about those events. Reevaluations of the earthquake catalogs in many parts of the country is needed immediately, especially since the results of this work would be of direct application to the calculations that are used to compute the national seismic hazard maps. More analysis of the existing strong ground motion database is needed. These data are used directly in the calculation of the national seismic hazard maps. However, the site conditions for many of the observations need to be documented and analyzed better, and improved estimates of the change of ground motions with distance, of the duration of strong ground shaking, and of the predominant frequency content of the ground shaking all need to be determined for many parts of the country, particularly in the eastern U.S.

A third priority of NEHRP should be a coherent plan for **long-term seismic monitoring in the seismically active parts of the country**. Many important benefits have accrued from the extensive seismic monitoring of past two decades. In California seismologists have learned about blind thrust faults, which pose a major earthquake hazard to the Los Angeles and perhaps the San Francisco-San Jose metropolitan areas. These faults are not found in the geology at the surface of the earth but can only be discovered by mapping the occasional earthquakes that randomly occur on them. Seismic monitoring has revealed the importance of the focusing of seismic energy, as described earlier in this testimony. It has revealed many seismically active areas in the Rocky Mountains, in the central United States, in the Appalachians, and along the seaboard of the east coast. In California, the rapid dissemination of earthquake locations and magnitudes is helping public utilities and emergency management officials to tailor their services to those who need them after earthquakes.

Seismic monitoring provides data on the rates at which earthquakes occur in a region, allowing estimations to be made of the probabilities of stronger earthquakes in the future. In many parts of the central and eastern U.S., not enough earthquakes have been recorded yet to calculate the earthquake rates with a great enough precision to allow estimates of the rates of large earthquakes to be made. Seismic monitoring also regularly reveals earthquake epicenters in new or unexpected locations, indicating to seismologists time and time again that not all of the potentially seismically active structures, even in California, have been discovered.

Seismic monitoring has an important direct benefit to society in that it keeps earthquakes and earthquake issues in the minds of the general public. Every time an earthquake (even a small one) is felt, much attention is paid to local centers where seismic monitoring is carried out. The public wants to know the location, magnitude, and cause of the earthquake. Local seismologists are able to use these opportunities to educate the general public about the earthquake in their particular area.

Seismic monitoring is carried out at two levels in the U.S. At the national level there is the National Seismic Network (NSN) operated by the U.S. Geological Survey. This network operates as a national resource for high-quality seismic data from stations scattered throughout the country. In cooperation with the NSN are a number of regional seismic network, such as the New England Seismic Network operated by Weston Observatory of Boston College in cooperation with the Massachusetts Institute of Technology. The New England Seismic Network monitors earthquake activity in the six New England states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. Together the NSN and the regional seismic networks form the Nasional Seismic System. It is the regional seismic networks that collect the detailed earthquake data used for seismic hazard studies. Virtually all of the seismic monitoring in the U.S., for both the NSN and almost all of the regional seismic networks, is funded by NEHRP. The continuation of this funding is essential if we are to continue the rapid progress in the understanding of the national earthquake hazard that has been gained during the past decade.

A fourth important element in NEHRP that should be maintained is for **public education about earthquakes and earthquake hazards**. The willingness by the general public to take measures to mitigate the potential effects of future earthquakes is directly related to their understanding of the earthquake hazards. Building designers and engineers who appreciate the threats from earthquakes are more conscientious in building earthquake-resistant structures. In many parts of the country those who operate utilities must appreciate that their services can be affected not only by local earthquakes but also by earthquakes at large distances from their service areas. In this day and age, electricity, water and natural gas are delivered over long distances (hundreds of miles in many cases), and a damaging earthquake along the distribution path can impact cities and towns in many different places. Earthquake education, like all education, must be viewed as a continuing effort to refresh the thinking of the old and to teach the young.

The devastating January, 1995 earthquake at Kobe, Japan had some important lessons for our country about earthquake hazard mitigation strategies. The Kobe shock was in an area that seismologists had warned could have a major earthquake, although one had not happened for hundreds of years. Since the probabilities for a major earthquake at Kobe are much lower than those for Tokyo, Japanese officials had put most of their money and energy into preparing the Tokyo metropolitan area for an earthquake disaster. Even with the earthquake engineering that was in place at Kobe, the 1995 earthquake caused much greater destruction than most had thought possible. The lesson for us is that we must prepare for earthquakes even in the moderately active areas outside of California. Boston, New York, Philadelphia, Washington, DC, Memphis and St. Louis are all cities that face some earthquake threat.

It is important that many aspects of earthquake studies and earthquake hazard mitigation are regional or national in nature and demand support and funding at the national level. For instance, a single major earthquake can impact many different states and cities. This is true in the New Madrid seismic area of the midwest, where Arkansas, Mississippi, Tennessee, Kentucky, Missouri and Illinois could all be affect by a singlen large earthquake. It is especially true in the northeast where the states are small in area. As an example, I recently completed a seismic hazard study for the State of Vermont. In my research I discovered that the greatest earthquake threat to the cities of northwestern Vermont come from earthquakes in northern New York state and southeastern Canada. Another example is the earthquake hazard in Boston. The most seismically active area near Boston is in southern and central New Hampshire, where I now believe a major earthquake was centered in 1638. If that earthquake were to recur today, not only would Boston be affected but cities like Concord, Manchester and Portsmouth, New Hampshire and Portland, Maine would suffer severe consequences.

For these and other reasons this is a particularly important time that funding for NEHRP, and especially that for the NEHRP research of the U.S. Geological Survey be maintained at the present time. NEHRP has been level funded for several years during which time inflation has slowly eroded the value of that funding. Much of the fat and some of the muscle has already been cut out of the seismological research part of this program. At this critical juncture with the new national seismic hazard maps in preparation, I urge you to fund NEHRP research to its fullest possible extent.

GREENBRIER VALLEY
SOIL CONSERVATION DISTRICT
Agriculture Service Center
717 North Jefferson Street
Room 102
Lewisburg, West Virginia 24901
Phone (304) 645-6173

Serving Greenbrier, Monroe and Pocahontas Counties

March 16, 1995

Appropriations Subcommittee on Interior
B304 Rayburn Building
Washington, D. C. 20515

THE GBR SOIL CONSERVATION DISTRICT IN TESTIMONY TO THE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR.

The Greenbrier Valley Soil Conservation District requests an appropriation of $25 Million for the Rural Abandoned Mines Program (RAMP).

This program is administered by the Natural Resources Conservation Service in cooperation with the local soil conservation districts. The local soil conservation district sets priorities and provides input that assures reclamation is consistent with local needs.

In 1991, Congress amended the Surface Mining Control and Reclamation Act to establish a separate fund for RAMP. This fund currently has $95 Million. This combined with annual collections will support a program of $25 Million without addition taxes being assessed.

The coalfields of West Virginia and surrounding states have provided the energy to support this country's industrial development for the past 100 years. These coal mining areas have paid a heavy environmental toll for the production of this energy. Coal mining communities have high unemployment and their natural resource base has been devastated by mining activity. This program helps reclaim these resources and provides employment that greatly improves the quality of life.

We appreciate your consideration of funding this program for $25 Million.

Respectfully,

David E. Smith

David E. Smith
Supervisor

Telephone
364-5105

ELK
SOIL CONSERVATION DISTRICT

Monongahela Power Co Bldg
Elk River Route
Gassaway, West Virginia 26624

March 16, 1995

Congressman Ralph Ragula
Chairman, Appropriations Subcommittee on Interior
B308 Rayburn Building
Washington D.C. 20515

Dear Congressman Ragula:

Attached is Testimony from the Elk Soil Conservation District concerning funding of the Rural Abandoned Mine Program of the Natural Resource Conservation Services (formerly the Soil Conservation Service).

We request your assistance in obtaining $25,000,000.00 appropriation.

Sincerely,

Bayward Butler
Bayward Butler
Chairman

kw

Attachments

Telephone
364-5105

ELK
SOIL CONSERVATION DISTRICT

Monongahela Power Co. Bldg
Elk River Route
Gassaway, West Virginia 26624

March 16, 1995

Appropriations Subcommittee on Interior
B304 Rayburn Building
Washington D.C. 20515

THE ELK SOIL CONSERVATION DISTRICT IN TESTIMONY BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR.

The Elk Soil Conservation District strongly supports an appropitation of 25 million dollars ($25,000,000.00) for the Rural Abandoned Mine Program (RAMP).

The fund established by congress with the 1991 amendment to the Surface Mining Control and Reclamation Act will support this funding level.

This appropitation comes from a specific trust fund that is not a part of the general budget.

Many landowners in central West Virginia prefer this program because it is administered by agencies that are not involved in enforcement of mining laws and regulations. They all like the opportunities the Soi Conservation District's and the Natural Resource Conservation Service's provide for the landowners input in reclamation planning.

This program creates jobs, improves water quality, and protects people from hazards in our coal mining communities.

We gratefully request that you appropriate $25,000,000.00 to the NRSC of the U.S. Department of Agriculture for this program.

Sincerely,

Bayward Butler
Bayward Butler
Chairman

kw

Mr. Chairman and other distinguished members, Theatre Communications Group is pleased to submit testimony to the House Interior Appropriations Subcommittee in support of FY 1996 funding for the National Endowment for the Arts at a minimum of $172.4 million.

Theatre Communications Group's mission is to celebrate and inspire excellence in the artistry of theatre in America. To carry out this mission, TCG's centralized services facilitate the work of thousands of actors, artistic and managing directors, playwrights, literary managers, director, designers, trustees and administrative personnel, as well as a constituency of more than 320 theatre institutions across the country. TCG's chief programs include fellowships and awards to theatre artists and institutions; conferences and workshops; surveys and research; a national arts employment bulletin; and a publications program that produces a line of books and periodicals, including plays and anthologies, resource and reference books, works of theory and criticism, and the monthly magazine American Theatre.

As the principal advocate for America's nonprofit professional theatres, TCG closely monitors the activities of the National Endowment for the Arts in acknowledgement of the central role it has played in the development and growth of the field, and continues to play to this day. The majority of TCG's member theatres receive funding from the National Endowment for the Arts and consider it of paramount importance to their entire income structure. Indeed, theatre companies and individual artists aspire to a grant from the NEA -- a "seal of approval" attesting to their artistic excellence as judged by a national panel of peer professionals -- an imprimatur that acts as leverage in attracting other private and public funding. Thus, the two-fold nature of an NEA grant -- cash award and imprimatur for other funding -- extends its worth far beyond its actual monetary value.

Theatre Communications Group respectfully submits the following precis of *Theatre Facts 94* to the House Interior Appropriations Subcommittee:

Nonprofit professional theatres all across the country continued to struggle for survival in 1994, according to *Theatre Facts 94*, the latest national survey published by Theatre Communications Group, the national theatre organization. Still unable to recover from prolonged effects of the economic recession, the majority of theatres failed to balance their budgets and experienced audience attrition.

Earnings did not keep pace with inflation as ticket sales reached a five-year low, mitigated at the box office only by price increases that countered the effects of fewer performances and lower attendance. Federal funding and corporate contributions were virtually flat, falling below the inflation rate for the period.

However, the negative economic environment was tempered by several positive factors: Theatres reported healthy increases in individual giving and foundation grants, while funding from state agencies, and from city and county coffers, regained some lost ground.

Despite continued tight control of operating expenses and widespread downsizing, more than half the surveyed theatres ended the year with operating deficits, and several theatres were forced to suspend operations or close their doors permanently in fiscal 1994.

"The institutional stress brought on by the negative economic climate took more than a financial toll," observed Barbara Janowitz, TCG's director of management and government programs and the report's author. "At least 33 theatres changed artistic or managing directors during the 1993-94 season alone, with another 15 leadership changes already reported in the current season, suggesting that economic instability is causing widespread upheaval throughout the field. In a number of instances, declining attendance and subscription sales were cited as reasons for the abrupt changes."

"Our hope that the country's economic recovery would spell relief for the theatres was dampened with last November's elections. Nonprofit organizations -- particularly arts institutions -- are not likely to find the Republican 'Contract with America' hospitable," commented Peter Zeisler, TCG's executive director. "We are extremely concerned that the new congressional agenda will succeed in diminishing the financial and symbolic leadership role of the National Endowment for the Arts, and force the private philanthropic sector to reorder its grantmaking priorities to compensate for widespread cutbacks in other social programs."

The *Theatre Facts 94* survey incorporates information from 231 nonprofit professional theatres located in 136 towns and cities in 42 states and the District of Columbia. Together, the participating theatres constitute a $460-million industry and employ almost 35,000 artists, administrators and technicians. Total attendance topped 20.6 million during the 1993-94 season, at 59,542 performances of 2,929 productions.

In addition to the 231-theatre universe, the survey examined a sample group of 68 theatres from 1990 to 1994. Highlights of this five-year economic trend analysis include:

ATTENDANCE AND PERFORMANCE ACTIVITY

- Attendance at all resident productions declined 2.8 percent, as half the sample group reported decreases in ticket sales between 1993 and 1994.

- Almost half the theatres also reported declines in the number of season subscribers. The percentage of mainstage seats filled by subscribers has declined from 50 to 46 percent since 1990.

- Presentation of workshops, staged readings and other developmental activities that support new work and emerging artists continued a five-year decline, with 37 percent fewer performances in 1994 than 1990.

- The number of touring performances has declined nearly 37 percent in the past five years, as diminishing resources prevented theatres from reaching out to audiences away from their home bases.

EARNINGS

- Earned income grew by only 1 percent -- less than half the 2.8 percent inflation rate.

- Theatregoers now pay for less than half the cost of a ticket; the other 53.3 percent is subsidized by public and private contributions, and by ancillary income earned by the theatres.

- Subscription revenue rose 3.9 percent, due solely to price increases, as the number of subscribers to all resident performances declined 3.1 percent.

- Income from single-ticket sales stagnated, with a scant 0.8- percent increase.

EXPENSES

- Nearly one-third of the sample theatres cut their operating budgets, and more than half the theatres registered year-end operating deficits because expenses exceeded income.

- Total expenses rose 2.9 percent -- roughly equivalent to inflation -- reflecting no real growth.

- Total salaries, fringe benefits, fees and royalties grew by 2.9 percent, reflecting static compensation budgets after adjusting for inflation.

- More than 60 percent of total expenses continued to be devoted to compensation of personnel, reflecting the labor-intensive nature of the field.

CONTRIBUTED INCOME

- Donations from individuals -- the largest source of contributed income -- rose a healthy 11.1 percent, although nearly 30 percent of the sample group reported decreases in individual contributions.

- Foundation grants increased 15.2 percent, more than any contributed income source; however, half the total went to just 13 of the 68 sample theatres, while 40 percent of the group reported declines in foundation support.

- Corporate contributions remained virtually flat, up just 1.3 percent, and 42 percent of the sample group reported dollar losses from corporate giving.

- Federal government support, including grants from all federal sources, increased less than one percent; support from the National Endowment for the Arts alone has declined more than 13 percent over the five years of the study.

- Total federal support, which covered some 7.7 percent of expenses in 1975, now covers only 2.4 percent.

- Grants from state governments increased 10.4 percent, partially recovering from sharp decreases in the three earlier years of the survey.

- City and county grants increased 13.6 percent, counteracting nearly all of the hefty loss reported the previous year.

"Given the current economic and political climate, it is of paramount importance for theatres to continue to expand their individual giving bases," concludes Janowitz. "The data strongly suggest that the theatres best equipped to weather the future will be those that are able to maintain a strong enough connection to their communities and their audiences, in order to garner individual contributions and other local support sufficient to withstand the Draconian shifts we can expect in public and private philanthropic policies."

Theatre Communications Group, the national organization for the American theatre, has conducted national surveys annually since 1974. Under the direction of Barbara Janowitz, research data was compiled by Lavinia Cousin.

Theatre Facts 94, containing the full text of the survey report with accompanying graphs and tables, has been included as a special insert in the April 1995 issue of *American Theatre*, the national theatre magazine published by TCG.

Christian ACTION Network

Martin J. Mawyer
President

Testimony of Martin Mawyer, President
Christian Action Network
House Appropriations Committee
The Honorable Ralph Regula, Chairman
March 24, 1995

Mr. Chairman and members of the committee, thank you for allowing Christian Action Network the opportunity to submit this testimony regarding the National Endowment for the Arts (NEA) to the Committee. Christian Action Network, (CAN) was founded in 1990 to promote pro-family issues and to advocate traditional American principles of religious liberty, public virtue and good government. Since our inception, CAN has grown to nearly 60,000 members representing each of the fifty states of the Union.

In the years that Christian Action Network has worked on behalf of our supporters, no public policy issue has engendered such resentment as the Congress' continued funding of the National Endowment for the Arts. Our members, and indeed millions of pro-family Americans, view this agency as an affront to their religious beliefs, heritage, sense of fairness.

No agency of government has done more to insult the values of traditional Americans than has the NEA. Over the years Christian Action Network has identified numerous NEA-supported works of art which mock religious values; highlight nudity and sexual perversion; glorify profanity; feature human mutilation; and celebrate sadomasochism and torture among other outrages. Many of these so-called works of art have been displayed and have been roundly denounced by lawmakers and the public at large. But when these embarrassments are exposed, past and present chairmen of the Endowment don't apologize to the public nor do they seek reimbursement for wasting taxpayers' money.

Consider some of the works which are the cause of the public's frustration with the NEA. Robert Mapplethorpe, with the help of taxpayer money, photographed himself with a bullwhip dangling from his rectum. Andres Serrano desecrated a crucifix -- one of the most sacred symbols of Christianity -- by immersing it in a jar of urine and photographing it. Ron Athey used the facilities of the NEA-supported Walker Arts Center in Minneapolis to provide the audience with a primer in ritualistic blood letting. Mr. Athey's performance consisted of carving designs into the body of an assistant, drawing blood from the incisions, blotting the blood on paper towels and hanging those towels on a clothesline suspended above the audience.

Photographer Joel-Peter Witkin, a recipient of four separate NEA Fellowship Awards, is reason enough to never again entrust your constituents' money to the NEA. Among Mr. Witkin's photographs are a skull severed from a human body, sliced in half vertically and both sides rotated toward each other at the lips so that the deceased is photographed as kissing himself; and another skull severed from a human body in which a small portion of the skull was removed from the top and flowers inserted to form a human flower pot. Mr. Witkin has also incorporated aborted fetuses, sacrilegious imagery, and males with severed genitalia in his works. Joel-Peter Witkin has an equal fascination with sexual perversion. One of his photographs shows a woman inserting her foot into the rectum of another person; a man's testicles stretched with a weighted pulley; and a naked hermaphrodite imaged to resemble Jesus Christ. I could cite many more examples, but you get the picture, so to speak.

Mr. Chairman, I respectfully suggest that no Member of this Congress would be willing, in a newsletter to constituents, to highlight his support of using taxpayer funds for such degeneracy.

No American should be forced through taxation to pay for such projects. Such works are hateful, gruesome, and add nothing to the general welfare of the people of this country. But let me clearly state the position of Christian Action Network on this issue. We believe these people have every right to create such works on their own time and with their own resources and sell them in the marketplace if they so desire. What they are not entitled to is public subsidies to aide them in such pursuits.

The chairman of the Endowment, Jane Alexander, likes to dismiss the controversial projects as she did last year at the National Press Club by telling us that the arts are "only doing their job" if they "cause outrage, fear and anger." Mr. Chairman, if Jane Alexander is correct and this is the role of art in our society then by no means should the government be in the business of deciding which citizens are outraged, intimidated, and angered at their own expense.

I would like each of the committee members to imagine for a moment that you were forced, by penalty of law, to pay somebody else to urinate on a picture of your mother, wife, husband, or daughter. Consider further that the public was invited to witness the desecration of your loved one's photograph and the government agency which forced this situation told you it was a work of art. You would be incensed and rightly so. But this situation is not much different than the present situation at the National Endowment for the Arts. That is, devout Christians being forced to pay for the desecration of sacred images of their Lord and Savior.

Mr. Chairman, on behalf of the 60,000 supporters of Christian Action Network and millions of other pro-family Americans across the country, I strongly recommend that no appropriations be made to the National Endowment for the Arts. This is a time of sacrifice for all Americans and artists should be no exception. This Congress has the opportunity to drastically change federal priorities and set a new standard for the way business is conducted in Washington.

To continue appropriations for the Endowment -- at any amount -- and hope for the best, will produce no change in the works which are funded by the NEA. Nor will continued funding of the NEA comport with the public's wishes.

Again, I strongly urge an end of all appropriations for the NEA. This is the only way to ensure the American people are no longer forced to subsidize others who are only out to attack them.

Thank you.

STATEMENT FOR THE PUBLIC RECORD

REGARDING FY 1996 APPROPRIATIONS FOR THE NATIONAL ENDOWMENT FOR THE HUMANITIES HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES

SUBMITTED BY:
QUEENS BOROUGH PUBLIC LIBRARY
JAMAICA, NEW YORK
GARY E. STRONG, DIRECTOR
March 30, 1995

Mr. Chairman and Members of the Interior and Related Agencies Subcommittee of the House of Representatives, this testimony is respectfully presented to you to highlight the critical support the Queens Borough Public Library received from the National Endowment for the Humanities (NEH). NEH support afforded the Queens Borough Public Library the opportunity to present to the public the life and times of Lewis Howard Latimer (1848-1928), an important, yet little-known, nineteenth century African American inventor and humanist.

Among Latimer's scientific works was a long-lasting carbon filament for Thomas Edison's light bulb, which made commercial electric lighting feasible. He created Alexander Bell's early drawings for the telephone and he installed the early commercial lighting systems in major cities such as Philadelphia, New York and Montreal. He wrote the first book published in America on electrical lighting.

Latimer also was an artist, poet and humanist who believed in the value of intellectual improvement, in the value of hard work, and in the opportunities

America could offer everyone. The child of former slaves, Latimer believed in civil liberties for all people, and had a long relationship with notable civil rights leaders such as Frederick Douglass.

Given the importance of the subject, and the opportunity to present a new, positive role model for young people, the Queens Library determined that the material and level of achievements merited presentation in the tradition of a high-quality, museum-level exhibit.

This project had been under consideration by the Queens Library for a number of years. However, the financial commitment required to tell the story of Latimer's life and scientific contributions was too great for a public library to absorb. Because the Library and Lewis Latimer's story were relatively unknown in the institutional support community, the chances to obtain outside funding were slim.

Queens Library first approached the NEH in 1993. After incorporating numerous practical and valuable suggestions offered by NEH professionals regarding the project, NEH awarded the project grant support of nearly $145,000, plus $45,000 in matching funds. This grant and the credibility derived by it enabled us to leverage new private funds and Library resources to make the exhibit possible.

In close collaboration with the NEH, Queens Borough Public Library unveiled its exhibit, "Blueprint for Change: The Life and Times of Lewis H. Latimer," on February 3, 1995.

In the six weeks since the exhibit opened, Queens Library's Latimer exhibit has received more than 10,000 visitors. These visitors reflect the diversity of Queens Borough, the full range of ages and backgrounds. Word of the inspirational story of Lewis Latimer is spreading quickly, and we expect the exhibit to attract a record of 100,000 visitors before its scheduled conclusion on August 26, 1995.

Given the success and popularity of the exhibit, we are considering ways to expand its impact by offering it as a travelling exhibit to other cultural centers across the United States. However, we will need continued financial support to realize the exhibit's full potential. We are hopeful that the National Endowment for the Humanities will be in a position to assist us in this important endeavor.

We applaud the Subcommittee's efforts to review federal government programs and determine where resources could be directed most effectively. However, we hope that you will balance cost-cutting objectives with a recognition that those programs which do deliver on their mandate in a demonstrable and cost-effective manner receive the support they deserve. The National Endowment for the Humanities is just such a federal government institution: NEH should be supported, so that stories like Lewis Latimer's are not lost.

Written Statement of Patricia Battin
Past President, Commission on Preservation and Access

On Behalf Of

The Association of Research Libraries, Commission on Preservation and Access,
and National Humanities Alliance

On the Fiscal Year 1996 Appropriations for the National Endowment for the Humanities

The Subcommittee on the Interior and Related Agencies
Committee on Appropriations
U.S. House of Representatives

March 31, 1995

The National Humanities Alliance, Association of Research Libraries, and Commission on Preservation and Access appreciate the opportunity to provide this written testimony on the preservation programs of the National Endowment for the Humanities for the House FY-96 appropriations record. This testimony was prepared by Patricia Battin, the founder and first president of the Commission until her retirement June 30, 1994. Ms. Battin was one of the initial proponents of the 20-year Brittle Books program managed by NEH's Division of Preservation and Access.

In October 1988, President Ronald Reagan signed a Fiscal Year 1989 appropriation bill increasing the budget of the NEH Office of Preservation to $12.5 million. This action effectively created the nationwide preservation program that uses modest funds to stimulate cooperation and resources to intelligently preserve and provide access to our nation's endangered intellectual heritage. During the past seven years, the NEH-managed program has become a model for nations around the world.

In an extraordinary partnership with libraries, archives, private foundations, publishers and international agencies, NEH has conceived and now coordinates an unprecedented battle against the crumbling acidic paper that threatens our recorded knowledge stored in libraries and archives. The track record of the Endowment's preservation efforts is impressive. As one example, after the first seven years of the 20-year Brittle Books program, accomplishments are right on target with our 1988 projections: Some 660,000 embrittled volumes are preserved or undergoing preservation. With a 33 percent cost-sharing requirement, 70 institutions are participating, from small archives and colleges to large research consortiums.

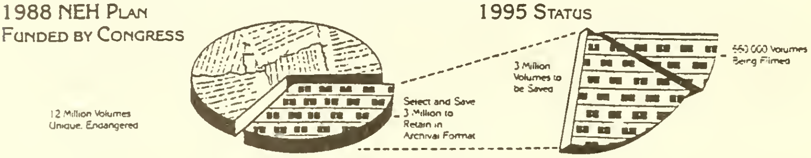
Preservation programs are not entitlement programs. All institutions applying for grants must go through a rigorous review process and provide one-third of the project's funding. Since the establishment of the Office of Preservation (now the Division of Preservation and Access) in 1986, the Endowment reports that its projects have leveraged over $6.4 million in gifts. Moreover, in FY1994, grants generated a level of cost-sharing totaling $19.4 million, equaling 84 percent of the Endowment's investment of federal funds.

The design of the Endowment's coordinated series of programs recognizes the fact that our nation's libraries and archives are not distributed evenly throughout the 50 states, ruling out the efficacy of a block-grant approach. The Division of Preservation and Access, for example, provides grants for statewide planning that enable each state to design a preservation program most suitable for its specific circumstances within the context of the national effort. In 1994, NEH was helping support preservation projects within 156 institutions and humanities organizations in 40 states and the District of Columbia.

Brittle Books

Only federal stimulus could make possible such a cooperative, sustained, and massive salvation effort as the Brittle Books program. Prior to 1988, the library and archival profession had repeatedly sounded the alarm, but to little avail. Millions of books were crumbling and turning to dust on shelves in libraries and archives. Scientific research had determined the cause of the decay: Acidic-based paper had been introduced in the mid-nineteenth century to respond to the demand for books and journals fueled by the spread of literacy and the growth of American scholarship. So-called "slow fires" triggered by the acids in the paper were breaking down the cellulose fibers that give paper its structural strength.

NATIONAL ENDOWMENT FOR THE HUMANITIES - THE 20-YEAR BRITTLE BOOKS PROGRAM


1988 NEH PLAN
FUNDED BY CONGRESS
12 Million Volumes Unique, Endangered
Select and Save 3 Million to Retain in Archival Format
1995 STATUS
3 Million Volumes to be Saved
550,000 Volumes Being Filmed

Surveys confirmed that nearly 80 million books in North American libraries were threatened with such destruction. Of that number, 12 million were unique titles requiring high-priority preservation. Not only were books endangered, but also maps, music scores, archival records, and other paper-based materials. By 1987 it had become unhappily evident that the individual efforts of the Library of Congress and large research libraries to preserve their collections were simply inadequate to the challenge.

Since our intellectual heritage belongs to all of us, it seemed eminently reasonable that the national interest required a federal response with judiciously determined priorities, coordinated leadership, and shared expenditures of public and private funds. The bold vision of Congress in October 1988 in recognizing the appropriate role of the federal government to help individual institutions preserve distinctive collections for the benefit of all citizens is amply documented by the NEH's record of achievement since that time.

The Brittle Books program is an outstanding example of the use of federal resources to support the national interest in which the whole is far greater than the sum of the parts. The program was carefully crafted not only to preserve the holdings in our nation's libraries but to make them accessible to all citizens in ways that were not possible before.

The massive preservation microfilming program carries a set of rigorous conditions: 1) filming that meets stringent technical standards; 2) a master negative, a print master, and a service copy for the institution; 3) entering the record into a national bibliographic database; 4) a commitment to provide interlibrary loan or film copies at cost to any requester; and 5) permanent storage in environmental conditions meeting nationally accepted standards. It also stretches preservation dollars by requiring that institutions concentrate on materials of the highest priority and that they avoid duplicating previous preservation efforts.

Newspapers

Newspapers represent the most widely used set of materials for learning about our history, both for scholarly studies and for individual citizens wishing to understand their own genealogical, ethnic, and local histories. Like books, newspapers are printed on selfdestructing paper. Because newspaper titles may be scattered throughout a state, cost-effective preservation is even more difficult than for books. Again, the challenge has required national stimulus and coordination by NEH. Some states did preserve newspaper holdings prior to 1982, but many could not afford a systematic approach, and none provided comprehensive bibliographic access to their collections. Since it was launched in 1982, the NEH U.S. Newspaper Program has involved all 50 states, Puerto Rico, and the Virgin Islands. Half of these states have completed their projects. When current projects conclude, 54 million pages of disintegrating newsprint will have been microfilmed, and bibliographic records for 224,000 newspaper titles will be accessible to the general public. Under this program, microfilm copies of newspaper are available to anyone anywhere in the country through interlibrary loan. And each state project produces a newspaper bibliography to ensure full access to all citizens.

Education and Research

Education remains a high priority need for librarians and archivists as they manage an increasing array of preservation activities. In 1994, an NEH grant to the University of Texas at Austin helped support the only graduate training program in library and archival administration and conservation that focuses on preservation of library and archival materials. Another grant supported staff training in book repair techniques to help 40 libraries preserve continuing access to circulating collections. Among grant recipients were the Universities of Washington and Utah and the University of California at Berkeley. An estimated 150 supervisory staff of libraries will receive training in management of preservation microfilming projects, thanks to another 1994 grant to the Northeast Document Conservation Center, Andover, MA. And an award to the Southeastern Library Network will provide education and training services in Alabama, Georgia, Kentucky, Tennessee, Louisiana, Mississippi, North Carolina, South Carolina, Virginia and Florida.

As we continue with established methods of preserving and providing access to materials, the preservation community also is investigating how to make the best use of digital technologies for preserving and providing access to humanities materials. Cornell and Yale Universities have received NEH grants to help establish national guidelines for the interchange of microfilmed and digitized materials within a preservation environment. The Endowment's support for such activities is crucial at a time when no single institution has enough resources to conduct research and development projects.

We must ensure that emerging technologies are used to provide enhanced access to the humanities to an even broader population of citizens. We also are concerned that humanities materials created with new technologies can be safely preserved for long-term reference. Both of these goals -- enhanced access and preservation of digital formats -- require new efforts. We welcome a proposed special initiative of NEH -- Technology and the Humanities -- to be implemented in 1996. Building on its past research, NEH would support projects that (1) apply electronic technologies to teaching the humanities at all levels of the educational system, (2) digitize texts, documents, images, and sound records, to constitute a digital library of humanities resources, and (3) expand public access to the humanities through technology and telecommunications. These activities are absolutely essential to this nation's education, preservation, and research efforts.

International Influence

In 1988, we were primarily concerned with saving the contents of American libraries. We didn't foresee the remarkable impact of the Congressional initiative on the international scene. The example of NEH leadership over the past seven years has resonated beyond our national boundaries and stimulated the governments of other nations-- large and small, developed and emerging-- to take similar actions. The wisdom of that vision has been recognized again and again as other governments have used the American experience as a model in organizing their own preservation programs. As a consequence, the international community is sharing with us the enormous effort to save and make accessible the fragile memory of the world. This coordinated international effort -- patterned after the NEH program -- provides our schools and libraries with needed intellectual resources from around the world with minimum cost and redundancy.

While developing its "Memory of the World" program, UNESCO has built upon the Endowment's preservation experience. UNESCO has contracted with IFLA (the International Federation of Library Associations and Institutions) to develop general guidelines for safeguarding the documentary heritage, a "world list" of library collections that have suffered damage since 1900, and a "world list" of current activities aimed at safeguarding the documentary heritage. Most recently, the new European Commission on Preservation and Access representing eight countries (with more to come), has issued its statement of aims and objectives that contributes to the preservation goals of the Endowment and pledges to work with the U.S. in ensuring the preservation of the published and documentary record.

"Slow Fires," the documentary film on preservation funded by NEH was a hit on U.S. public television when released in 1987. It has since been televised in Belgium and Portugal and been viewed by administrators of national and regional libraries in China, France, Great Britain, Belgium, Portugal, Germany, Switzerland, Czechoslovakia, Guatemala, Nicaragua, El Salvador, Costa Rica and Peru. It has been translated into Russian, Chinese, French, Portuguese and Spanish. And it has sparked worldwide preservation activity, funded by others, that is salvaging materials of importance to U.S. students, teachers, and researchers.

In Conclusion

The Endowment's preservation activities provide Congress with an ongoing success story of public money wisely spent, leveraging resources nationally and internationally. What was conceived and promised by the Endowment in 1988 is being delivered by the Endowment (together with supporting institutions) in 1995.

Success to date, however, is predicated on a long-term view. The Brittle Books program, a 20-year effort to save three million volumes, is only 25 percent complete. The network forged by the Endowment -- institutions that are sharing costs and working cooperatively for the benefit of all -- is poised to deliver the remaining portion of the promised volumes by their due date and to expand their collaborative preservation activities under the able leadership of the NEH. The 104th Congress has the historic opportunity to continue the legacy so wisely established by its predecessors, so that our children and grandchildren can know and understand their heritage.

March 15, 1995

Subcommittee on Interior
The Honorable Ralph Regula, Chair
B. 308 Rayburn Bldg.
U.S. House of Representatives
Washington, DC 20515

WRITTEN TESTIMONY SUBMITTED FOR THE HEARINGS ON NEH:

I'm a high school English teacher in the small town of Grants Pass, Oregon. I attended an NEH summer seminar in 1991 on the works of William Faulkner, and I'm very concerned about all the talk of cutting NEH funding. Based on my personal experience and that of three other teachers at my school (Marty Zottola, Gwen Jacobsen, and Carolyn Crowley) who have been fortunate enough to participate in the seminars, the money spent benefits teachers, students, and schools in ways far beyond the dollar amount.

First, I'd like to address some criticism the committee heard from William Bennett in January. He said that the Endowments (NEA and NEH) "have not even improved the quality of the arts and humanities since 1965." By whose standards? By our standards at Grants Pass High School, the quality of the humanities has definitely improved. All of us have shared our experiences and the knowledge gained with other teachers and our students. As a result of the Faulkner seminar, I was able to improve the quality of my teaching in three classes, not only by the scholarly work done but by such activities as eating bar-b-que and taking a tour of the bayou. Students in those classes are now more aware of Southern culture as well as more knowledgeable about Faulkner's writings. Because our seminars took place in Mississippi, Ohio, Indiana, and Tennessee with teachers from throughout the U. S., we have brought back a better appreciation of those sections of the country and have established lasting contacts with several teachers. The scope of the seminars goes beyond the borders of the U. S. In my seminar we had teachers from Latvia and Poland who returned to their countries with a greater appreciation of Faulkner, the South, home states of other participants like Oregon and Texas, and our educational system. I know because we still correspond.

Mr. Bennett criticized the Endowments for endorsing and fostering such negative movements as multiculturalism. This is a negative? What one culture does he propose? If it is that of the white culture, then is he going to eliminate the culture of my Cherokee great grandmother? And which white culture? My Irish? My German? My English? My Scottish? As you may know, in 1993 Toni Morrison became only the second American woman to win the Nobel Prize for literature--quite an honor. Would Mr. Bennett deny her? As she has written, "Whiteness, alone, is mute, meaningless, unfathomable, pointless, frozen, veiled, curtained, dreaded, senseless, implacable." NEH should be praised for supporting a recognition of the varied cultures that have made us such a great, colorful country.

Mr. Bennett also said that high school teachers were being "indoctrinated in the prevailing dogmas of academia." I resent that condescending remark. He does not give us much credit. People who are selected for these seminars are not stupid nor easily led. Most of the high school teachers I know are not impressed with some of the gobbledygook (deconstructionism, etc.) that a few university professors spout. Because they might espouse something does not mean that we have to swallow it. Much of what is gained at the summer seminars comes from the opportunity for teachers from private and public schools throughout the country to get together, share, and explore. The NEH offers us an opportunity that most of us could not afford on our own. Often the professor is mainly a facilitator. How many participants has Mr. Bennett talked with? How many participants has this committee listened to?

To conclude: keep the funding for the summer seminars because they expand teachers' awareness of what others are doing in a variety of schools. They offer an opportunity for intensive examination of a topic of importance with people equally interested. They enrich our students' knowledge of the humanities. They enable us to make our classes more interesting which leads to better learning. They improve global understanding by including teachers from foreign countries. They promote probing and questioning, two keys to better thinking. My grandmother taught for forty years in the backwoods of Arkansas, and she never stopped learning, always open to new experiences and ideas. She used to tell me to get as much education as I could, and she compared it to her button box. She put every button she found into her box, because she never knew when just the right button for the right job would appear. Please don't limit our educational buttons.

Sincerely,
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Written Testimony before the House Appropriations Committee
Subcommittee on Interior

Hon. Ralph Regula, Chairman

March 21, 1995

Offered by the Association of Systematics Collections

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Summary

The Institute of Museum Services is a model governmental program: lean, effective in promoting positive community values, and important for local economic development. We urge reauthorization of the IMS, and appropriations at the level recommended in the President's budget. This small program promotes self help and seeds private participation in American museums. It supports institutions that uniquely uphold an important public trust: caring for the irreplaceable physical objects that document our nation's natural and cultural resources.

The Association of Systematics Collections (ASC) represents the nation's natural history collections used for research, formal education, and public enlightenment. Our members include museums, botanical gardens, universities, and state agencies. Many of our members are eligible to apply for competitive grants from the Institute of Museum Services. ASC is also eligible to compete for IMS funds for projects that improve museum practice throughout the United States. IMS has been instrumental in helping us to develop professional standards in our field. IMS is especially important to small museums and colleges without the resources to develop programs on their own. It promotes efficient use of museum resources by encouraging cooperation and sharing among museums and between schools and museums.

Today, IMS and virtually all other federal agencies and programs are undergoing a review that properly questions the need for their very existence. ASC agrees that this scrutiny is overdue. We offer our comments **in support of reauthorization and appropriation at the President's recommended funding level for IMS** in this spirit. Is federal funding for museums a legitimate governmental pursuit in the interests of the American people? What does the IMS do that could not be accomplished (or will not be accomplished) by the private sector or other governmental units? Is IMS doing a good job at providing legitimate government services with federal funds?

It is important to stress that IMS is independent of the National Endowment for the Humanities and the National Endowment for the Arts and stands on its own merits. Its mode of operation and its customers are fundamentally different. Some programs of the NEA and to a lesser extent, the NEH, support the creation of new "culture" (e.g., works of art), whereas the IMS does not commission artistic or cultural works. **IMS does not fund particular exhibits or artists**. IMS instead rewards museums that have demonstrated outstanding performance in the context of the communities that they serve, as judged by their peers, and it helps museums protect the collections that they hold in trust for the American people. It helps make museum resources available for education of the nation's children and for enrichment of community life for all Americans, at a remarkably small price. It helps small, rural museums gain access to resources such as database technology developed by the larger museums.

IMS affects a broad segment of Americans and not an elite few. It provides only a tiny fraction of the resources that support our nation's museums, **most of which comes from private and corporate giving. But IMS funds leverage other funding for museums. IMS provides a way for the private community to judge museums, and it promotes excellence.** Therefore, even for institutions that have never been funded, IMS has an important positive effect. Most museums rely on IMS-funded institutions for loans of specimens or help with exhibits.

The IMS is one of only a handful of programs at any level of government that directly support museums *qua* museums. IMS improves public accessibility of museums, while

allowing local communities to decide on the content and programs of their own museums. For example, IMS provides General Operating Support grants to meritorious museums, but the museums themselves decide how an award will be spent. IMS grants are peer-reviewed and judged on merit. IMS draws public attention to the good works of museums. It funds all types and sizes of museums and botanical gardens. It helps provide the infrastructure that allows individual institutions to survive and grow, so that they can provide jobs and contribute to local economies.

Natural history institutions have benefited greatly from IMS grants for improvement of collection care. Through IMS funding, ASC was able to survey our museums and produce a book on "Planning and Policies in Natural History Collections," guidelines for modernizing our institutional operations given changing laws, regulations, and ethics. IMS has thus helped develop standards and expectations that have greatly improved the quality of our services to the public.

The great collections of our museums are a part of our nation's historical heritage that give us shared values, and hence are a national public treasure. Many of the collections were once privately owned, but were donated to public institutions to be shared with future generations of Americans. They are our responsibility now and into the future. Many collections, by deed of gift to not-for-profit institutions or state museums, cannot legally be returned to the private sector. Even if they could, we would be breaking trust with the generous donors of the past, and the nation could expect a precipitous decline in such public generosity.

If IMS were gone, it is unlikely that state and local governments, also under pressure to cut budgets, would substitute their own resources. Rather, we expect a downward cycle of local government support. Unfortunately, museums are vulnerable to even a small gap in support for their collections and other infrastructure. They rely on public funding because they operate solely in the public interest. Small businesses rightfully resent the competition they may face if museums attempt to provide commercial services. Opportunities exist for commercial success at the level of the occasional "blockbuster" temporary exhibit, but such events do not cover the cost of maintaining and conserving collections that are held in trust for the public. In fact, many an institution has found that major exhibits, while bringing substantial tourist revenue to the host city, leave the institution facing worn carpets and other deteriorated infrastructure, and little to show on their own balance sheet.

What does IMS provide that is unique and irreplaceable? Its highly competitive grant programs force institutions into self evaluation in a context of national comparison. Local funding cannot do this. IMS has raised the standards and expectations of museums, especially those in smaller cities and rural areas. It has provided carrots for institutions to do important things, such as conservation surveys, that are often put on the back burner in favor of more visible projects. Through the process of training reviewers and giving them an opportunity to compare institutions, it has helped to train broad-thinking leaders for the future. IMS thus gives individuals the opportunity for personal and career growth. For cultural institutions, this broadening of thinking is something that cannot occur easily on the local level alone.

IMS helps our museums in ways that allow them to serve as major centers for informal education in the sciences. Public schools take advantage of these services. Few Americans do not remember a trip to their local natural history museum as a child.

IMS is a small program in dollars that is focussed, efficient, and responsive to its constituency. Throughout its history, it has been staffed by people who care about its mission, rather than faceless bureaucrats. Despite its national scope, it has remained close to the people it serves through constant feedback. It has listened to the suggestions of Congress as well, in opening doors to new public constituencies for museums. IMS, by supporting fundamental needs of museums, keeps culture affordable and accessible to the average American. If museums had to be entirely self-supporting, only the urban elite could afford to participate. While some believe that government has no role in a nation's culture, this view is counter-indicated by history in this and every other organized nation, going back at least to ancient Greece. National support of cultural OPPORTUNITY can be an elevating and liberating force.

There is a trend in Congress to support block grants to the states for various purposes, including education. However, the track record of the Department of Education shows that block grants in science and education have not been very effective. Many believe that there have been poor quality control and poor return for the money. NSF has been asked to pick up more and more of the support for K-12 science education, in part because of poor performance of the block grant system. Block grants to the states become highly politicized, and generally are weak in peer review and post-award evaluation. We do not want to see the small amount of museum funding head in this direction.

In summary, we urge authorization of IMS, and appropriation of funds for IMS at the level suggested in the President's budget. This small program promotes self help and seeds private participation. It supports institutions that uniquely uphold a public trust: caring for and providing public access to the physical objects that document our natural and cultural heritage. IMS is a model governmental program and should be continued.

AMERICAN ZOO AND
AQUARIUM ASSOCIATION

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The Honorable Ralph Regula
US House of Representatives
Committee on Appropriations
Subcommittee on the Interior
Room B-308 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

The American Zoo and Aquarium Association (AZA) appreciates the opportunity to submit these comments in support of the Institute of Museum Services (IMS). The AZA represents virtually every professionally operated zoological park, aquarium, oceanarium and wild animal park in North America as well as over 6,000 individual members.

As Chairman of the House Appropriations Subcommittee on Interior, we respectfully request that the Subcommittee appropriate, at a minimum, $29.8 million - the request made by the President for FY96 IMS grant programs. If appropriated in full, it would represent the first substantial increase for IMS in over two years. These grant programs support museums as educational institutions. Zoological parks and aquariums serve a very important cultural purpose by educating the public about the diversity of life around the world.

Each of AZA's member institutions support a wide variety of programs, including public education, wildlife conservation (domestically and internationally), breeding, reintroduction of endangered species, and international outreach. These and many other important projects call for finances above and beyond the operating cost of the everyday maintenance of an institution. The continued existence and success of these programs quite often depends upon money received through grant programs such as those administered by IMS.

IMS funding is a mark of achievement - "the government seal of approval" -that tells the private community that they can invest with confidence in a zoo or aquarium that has proven itself. Public funding is seen as "seed money," emphasizing that museums reach out to the entire community, not just to those who provide financial support. In short, IMS funding leverages other funding for museums.

A number of institutions have been recipients of General Operating Support (GOS) grants, which are awarded to assist with the day-to-day operations of the facility and may be used for almost all zoo activities. GOS grants are

Founded in 1924 as the American Association of Zoological Parks and Aquariums to support membership excellence in conservation, education, science, and recreation.

important because they represent the most difficult money to raise. A grant can provide up to $112,500 for a two-year cycle. They allow zoos and aquariums to concentrate their scarce resources on raising funds for education exhibits and conservation efforts. Moreover, GOS grants are matched on average with at least seventeen non-federal dollars for every dollar of federal money. **(See attached appendix)**

Many other AZA institutions have used IMS funding for implementing innovative conservation programs, or improving those already in existence. IMS Conservation Project Support (CPS) Grants are designed to help zoos and aquariums meet the basic conservation needs of their collections. The CPS grants require a 50% match by the applicant from non-federal sources, but many include institutional and in-kind contributions. CPS grants also may be used for the development of long-range conservation plans, improvement of collection environments and research in conservation techniques, including species survival activities. **(see attached appendix)**

For FY94 and the first cycle for FY95, AZA member institutions received $482,046 from IMS for conservation projects. Conservation continues to remain the top priority for AZA. Since 1981, when AZA created the Species Survival Plan (SSP) for the long-term survival of certain threatened and endangered animals, 71 SSP's covering 118 individual species have been established at zoos and aquariums throughout North America.

Finally, the AZA has received $57,360 over the last five years via the Professional Service (PSP) Fund, which is available to private, non-profit, professional museum service organizations for projects that strengthen and improve museum services at the local, state and national level. Proposals were evaluated by a peer review panel and funding was based on the proposals' benefits to the museum field at large. The AZA projects involved developing the course to standardize husbandry techniques to better train managers of zoos and aquariums to maintain captive populations of endangered animals, and to review current scientific techniques for genetic and demographic management of species in captivity to formulate a new methodology.

AZA believes IMS grants are beneficial to the public at large. We urge your full support of a $29.8 million appropriation for IMS.

Thank you for consideration of our comments.

Sincerely,

Kris Vehrs

Kristin L. Vehrs
Deputy Director

Robert G. Howarth
Legislative Affairs Specialist

STATEMENT of
ROBERT C. WILBURN
PRESIDENT & CHIEF EXECUTIVE OFFICER
THE COLONIAL WILLIAMSBURG FOUNDATION
WILLIAMSBURG, VIRGINIA

This testimony is being submitted in support of the National Heritage Preservation Program (NHP), administered by the Division of Preservation and Access of the National Endowment for the Humanities. This unique initiative, whose goal is to stabilize collections of material culture, responds to what has long been identified as one of the most pressing needs in the conservation field. It complements NEH's successful "brittle books" program because objects, like written documents, are the key tools by which knowledge is conveyed from generation to generation. In many instances, objects provide the only source of information about societies that left behind no other records. In other instances, objects enhance and expand our understanding of written documents. The National Heritage Preservation Program has proved to be of immense benefit to museums and other institutions which bear the responsibility for the preservation of this important portion of our national heritage.

The diverse range of collections supported by NHP grants is truly impressive. For example, in the past year the Thomas Jefferson Memorial Foundation was awarded funding to improve environmental conditions at Monticello while similar support was awarded to the Henry Ford Museum, a National Historical Landmark building in Dearborn, Michigan. A small grant of $170,000 has enabled the Mark Twain Memorial in Hartford, Connecticut, to install a new climate control system for the museum's collection of 4500 artifacts that document the life and time of one of our nation's most beloved writers. New York's Metropolitan Museum of Art has received support to rehouse over 30,000 objects in its priceless collections of textiles and an NHP grant has enabled Santa Fe's School of American Research to install a computerized collections care management system for its Native American collection. NHP funding has also been awarded to preserve treasures of early American history housed in Fort Ticonderoga and to document the Pacific region ethnographic collections of the Oakland Museum in California.

My own institution, the Colonial Williamsburg Foundation, has also benefitted from support from the National Heritage Preservation Program. In 1992, we were awarded a substantial three-year grant to replace the electrical, fire, and environmental systems at three of our most important exhibition buildings, including the Governor's Palace, and to upgrade storage facilities for historical objects not currently on exhibition. NHP funding covered 38 percent of the total cost of the project; Colonial Williamsburg used matching funds to cover the balance.

Nearly three million visitors come to America's living history museum each year to learn the stories of our founding fathers and of the everyday 18th-century men and women who lived there. The Colonial Williamsburg Foundation uses decorative arts collections that rank among the most important in North America to teach our visitors the process by which the Englishmen, Africans and Europeans who settled Virginia came to regard themselves first and foremost as Americans.

For more than 60 years, Colonial Williamsburg's collections have brought a sense of realism to our exhibition sites. Among these, three of the most important are the Governor's Palace, home to Virginia's royal governors and later to Patrick Henry and Thomas Jefferson, the first two colonial governors; the Wythe House, home of a signer of the Declaration of Independence; and the Brush-Everard House, home to a mayor of Williamsburg and clerk of the circuit court. The collections in these homes tell the stories of their owners, families, servants and slaves, and offer a comprehensive picture of 18th-century American society. They are central to our interpretive mission.

These structures were linked together by a common environmental system that was old and inadequate to modern demands and that subjected the objects in these buildings to daily fluctuations in temperature and humidity. Thanks in large measure to NHP support, renovations to the Governor's Palace were complete in time for a 60th anniversary reopening last year, and the Wythe and Brush-Everard Houses are reopening this spring. With the protection that the new systems afford, the collections in these exhibition buildings will be protected well into the 21st century, so that the future may continue to learn from the past.

NEEDS OF COLLECTIONS CARE MANAGEMENT

Unfortunately, just housing collections inside the walls of a building does not guarantee their survival. All too often, objects are kept in environments that actually hasten their deterioration. Entire collections are often crowded into inadequate storage facilities without proper climate control, security or fire prevention systems. Exposed to insects, dust, moisture or unfiltered sunlight, objects and, more importantly, the knowledge they can impart are in danger of being lost forever. To combat this threat, the National Heritage Preservation Program provides matching-grant support for:

--installation or renovation of security, fire prevention, climate control and lighting systems as well as pest control equipment;

- renovation of storage facilities and acquisition of storage equipment and supplies;
- hardware and software computer expenses and visual documentation of objects for cataloguing purposes;
- installation and renovation of conservation laboratories;
- personnel to implement these improvements; and
- training programs for conservators and collections care technicians.

We are especially pleased that NHP grants are also now being awarded for the vital training of conservators to meet the specialized requirements of collections of material culture. Methods of conservation often differ from the more traditional approach applied to art collections and even to some anthropological and historic objects that are used for exhibition purposes. Conservation of collections of material culture must also take into account their importance as valuable academic reference materials. During conservation treatment, all evidence that may aid in the reconstruction of the original context and history of the artifact must be preserved, or at least recorded, and inappropriate restoration methods must be avoided since many alterations, such as over-cleaning, interfere with future study and research. As you can see, this calls for highly specialized training of professional conservators and we are extremely pleased to see that NHP funds are now being directed toward training programs in this most important area.

THE ROLE OF FEDERAL LEADERSHIP

This committee is to be commended for having the foresight to create the National Heritage Preservation Program. For such a small program, it has had an enormous impact on the entire field of collections care and we are grateful for your continuing support of this important initiative.

Unfortunately, private donors often have not been sufficiently educated about the importance of conservation efforts and consequently would rather have their contributions associated with special exhibitions or building projects rather than with the installation of a fire prevention or climate control system. But largely due to the success of the National Heritage Preservation Program, public awareness of the importance of collections care has greatly increased in the past few years. It is an impressive example of the role of federal leadership and has helped convince trustees, individual donors, corporations and foundations, as well as state and local governments, that conservation is an important priority. For example, a survey of FY 1994 grants by the Humanities Endowment revealed that a federal investment of $6.2 million generated $9.2 million in matching funds. Put another way, rather than raising only the 50 percent required match, grantees raised 148 percent of project costs.

The Humanities Endowment is requesting $5.75 million for this program in FY 1996, slightly more than half of the amount we believe to be necessary to meet conservation needs. The justification for an annual $10 million expenditure has been addressed in lengthy testimony submitted to this committee in previous years by the National Institute for the Conservation of Cultural Property. To briefly recap, the NIC's funding recommendation is based on several extensive studies that project a need within the next fifteen years to renovate and upgrade more than 12 million square feet of storage, laboratories, preparation areas and exhibition space as well as to install new conservation facilities. In addition, increased training opportunities must be provided for collections care technicians and professional conservators.

We all recognize the spending constraints that will be imposed on this committee for the FY 1996 appropriations cycle but we urge you to remember the importance of the National Heritage Preservation Program when you begin your budget deliberations. Failure to act now cannot be corrected in the future. Once a collection - or even one object in that collection - has deteriorated, it cannot be replaced. I am certain each member of the committee understands the urgency of our appeal.

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